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Teaching Law Students to Be Self-regulated Learners

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TABLE OF CONTENTS

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INTRODUCTION

Talk to enough law professors and you get a sense that many law students do not perform as well as their professors hope the students will perform both in law school and on the bar examination. Indeed, many law schools attrit an astonishing number of their students,[1] and many have expressed dissatisfaction with their law school's bar passage rates and have sought ways to improve those rates.[2] Attrition and bar passage rates, however, are more like symptoms of the problem than the problem itself. According to every colleague with whom I have ever spoken, the cause of our bar passage and attrition issues is the failure of our students to learn what we try to teach them. In other words, it is not that we fail to provide instruction to our students that addresses the skills and knowledge they need to become competent novice lawyers, to pass the bar exam, and to avoid being academically dismissed. Rather, the problem is that the students do not learn what we wish them to learn.

The disagreement among us arises when we begin to assess why students fail to learn. Some have argued that the students simply cannot learn what they need to learn. According to this view, students come to law school pre-programmed either to succeed or to fail and there is nothing law schools can do to change this fact. A slight offshoot of this view, common among law professors throughout the country, is similar. According to this view, law professors deserve kudos for already teaching our students as well as they can be taught. While this view suggests law school instruction is making a difference in student outcomes, it is, somewhat paradoxically, often combined with assumptions that we law professors are doing *everything* we should do in teaching our students and that there is no change we could make to our

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1. In fact, approximately 40% of the 184 ABA-approved law schools have attrition rates in excess of 10% at the end of at least one year of law study, approximately 20% have attrition rates in excess of 15% at the end of at least one year of law study, and approximately 10% have attrition rates in excess of 20% at the end of at least one year of law study. *See* ABA & LSAC, OFFICIAL GUIDE TO ABA-APPROVED LAW SCHOOLS (Wendy Margolis et al. eds., 2003).

2. For example, one session of the January 2001 AALS Annual Meeting was devoted to a discussion of approaches law schools have taken to improve their bar passage rates.

instructional methods and programs that would significantly change student outcomes. I see this view as an offshoot of the first view because both views share the conclusion that there is little or nothing more we can do to help our students learn more and better. Also, under both views, current law school and bar exam outcomes are immutable.

There are others who assert that our students could learn better if they would only work harder. Under this view, the outcomes are not the inevitable product of the students' deficiencies; rather, the students are to blame for their own failures. This view, however, ignores the fact that many of our students study harder than we did when we were law students and, even among those who study unimaginably hard, there are still many who flunk out or fail the bar exam. Ultimately, this view is similar to the two views described above in that all three focus on student deficiencies and all three assert there is nothing we can do to help our students learn more and better.

A. An Alternative View

In one of the most cited pieces of law school andragogy scholarship ever published, Jay Feinman and Marc Feldman critique the three views outlined above:

> This concept of legal education . . . assumes that intelligence and talent are normally distributed among the population and that the intelligence and talent possessed by an individual are relatively immutable. Society makes use of this distribution of ability by creating hierarchical employment structures and hierarchical reward structures. Democracy, in this conception, consists of providing everyone equal opportunity to develop his or her talents and to be rewarded for their [sic] exercise.
>
> This idea is an outgrowth of Darwinian evolutionary theory, although it also seems to be associated with other hierarchical ideologies from divine ordination to sociobiology. In law it is buttressed by Frankfurterian notions of meritocracy. The complex hierarchies of law schools, law students, law professors, and lawyers' practice settings are justified as reflecting real differences in the abilities of those stratified. The educational system, from the earliest grades to the law schools, is a process of continually finer sorting of students by natural ability; the function of the system is the selection of talent, rather than the development of talent across the board.
>
> This concept of widely distributed intelligence is evil and false. It is evil because it supports social institutions that prevent the full development of human potential and freedom by convincing people of their own inadequacy. It is false because it is inconsistent with mountains of research and years of experience demonstrating that widely distributed learning outcomes are more a product of ineffective schooling than of the abilities of the students.[3]

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3. Jay Feinman & Marc Feldman, *Pedagogy and Politics*, 73 GEO. L.J. 875, 896-97 (1985) (footnote omitted).

In other words, a fourth view of the cause of the dissatisfactory outcomes is not only possible but also appropriate. I believe a growing number of my colleagues in the legal education community, particularly among those attending conferences such as those sponsored by Gonzaga's Institute for Law Teaching, the annual CALI conference, and other recent conferences focused on law school teaching, share this view. According to this fourth view, the problem lies not with the learners, but rather, with the teachers and the educational programs. Feinberg and Feldman describe the issue as follows:

> What is primarily missing in law school is an educational environment that provides students with the resources and the situations with which they can best learn. When given appropriate instruction, nearly all law students can achieve mastery–not minimum competence, but mastery–of the skills of the novice lawyer.[4]

In my Summer 2001 article,[5] I outline the changes I believe we need to make to improve how we teach. As I argue in that article, law professors generally fail to identify their learning objectives, provide little congruity between their unstated learning goals and the instruction they provide, offer law students few opportunities to practice and obtain feedback with respect to the skills they are supposed to be learning in law school, and fail to tailor their instructional techniques to the particular needs of their particular students. Instead, law professors make no effort to consider their learners, choosing to use textbooks designed with no particular student populations in mind.[6]

B. Overview of Article

If my Summer 2001 article can be described as a proposal that we change how law teachers teach, this article should be described as a proposal that we change how law learners learn. In other words, this article argues that we should teach our students to be self-regulated learners.

Thus, this article addresses the rationales for the creation of a self-regulated learning curriculum for law students, describes the design of such a curriculum, and reports the results of my law school's trial offering (on a pilot basis) of an introductory program designed to teach new law students to be self-regulated learners.

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4. *Id.* at 897; *see also* MICHAEL PRESSLEY ET AL., COGNITIVE STRATEGY INSTRUCTION THAT REALLY IMPROVES CHILDREN'S ACADEMIC PERFORMANCE 9 (2d ed. 1995) (arguing that student success is "often a result of using appropriate strategies rather than superior innate ability or just trying hard").

5. *See* Michael Hunter Schwartz, *Teaching Law by Design: How Learning Theory and Instructional Design Can Inform and Reform Law Teaching*, 38 SAN DIEGO L. REV. 347 (2001).

6. *See id.*

The article has four sections: (1) a background section in which I explain what self-regulated learning is, distinguish expert self-regulated learners from novices, articulate the student and teacher benefits of teaching students to be self-regulated learners, and discuss the support from legal academics and the practicing bar for teaching expert learning skills to law students; (2) a discussion section in which I outline the many studies of self-regulated learning and consider the implications of those studies for legal education, (3) a discussion of the design of the self-regulated learning text and introductory course I created and my plans for a complete self-regulated learning curriculum, and (4) a report on the preliminary results I obtained.

I. BACKGROUND

This section details the self-regulated learning cycle, including each of the three phases it involves, the differences between novice self-regulated learners and their more expert peers, the benefits to students and instructors from teaching students to be self-regulated learners, and the support from legal commentators and practitioners for creating a self-regulated learning curriculum.

A. What is Self-Regulated Learning?

Self-regulated learning ("SRL") or, as the educational psychology literature sometimes terms it, expert learning, "involves the active, goal-directed, self-control of behavior, motivation, and cognition for academic tasks by an individual student."[7] Professor Barry Zimmerman, one of the leading authors in the field, explains:

> Self-regulated learners . . . view . . . academic learning as something they do for themselves rather than as something that is done to or for them. They believe academic learning is a proactive activity, requiring self-initiated motivational and behavioral processes as well as metacognitive ones. Unlike their less skilled peers, self-regulated learners control their own learning experiences through processes such as goal-setting, self-monitoring, and strategic thinking.[8]

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7. Paul R. Pintrich, *Understanding Self-Regulated Learning*, *in* NEW DIRECTIONS FOR TEACHING AND LEARNING: UNDERSTANDING SELF-REGULATED LEARNING No. 63, at 5 (Paul R. Pintrich ed., 1995).

8. Barry J. Zimmerman, *Developing Self-Fulfilling Cycles of Academic Regulation: An Analysis of Exemplary Instructional Models*, *in* SELF-REGULATED LEARNING: FROM TEACHING TO SELF-REFLECTIVE PRACTICE 1 (Dale H. Schunk & Barry J. Zimmerman eds., 1998).

In other words:

> Expert learners display planfulness, control, and reflection; they are aware of the knowledge and skills they possess, or are lacking, and use appropriate strategies to actively implement or acquire them. This type of learner is self-directed and goal oriented, purposefully seeking out needed information, "incorporating and applying a variety of strategic behaviors designed to optimize academic performance. . . . " Expert learners are *strategic* strategy users. By using the knowledge they have gained of themselves as learners, of task requirements, and of specific strategy use, they can deliberately select, control, and monitor strategies to achieve desired goals and objectives. Learning activities are [self-]monitored while in progress to make on-line decisions regarding whether the strategy(ies) in use should be continued, modified, or terminated . . . . [E]xpert learners notice when they are not learning and thus are likely to seek a strategic remedy when faced with learning difficulties. By being consciously aware of themselves as problem solvers and by monitoring and controlling their thought processes, these learners are able to perform at a more expert level, regardless of the amount of specific domain knowledge possessed.[9]

Actually, most of us who teach for a living are, ourselves, self-regulated learners and have encountered students who possess excellent self-regulation skills:

> Teachers know self-regulated academic learners when they see them - these students are interested in the subject matter; well-prepared; and ready with comments questions, ideas, and insights; they are problem finders and problem solvers, unafraid to fail or to admit they do not understand, driven to rectify failure and to construct understanding.[10]

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9. Peggy A. Ertmer & Timothy J. Newby, *The Expert Learner: Strategic, Self-Regulated, and Reflective*, 24 INSTRUCTIONAL SCI. 1, 5-6 (1996) (quoting Reinhard W. Lindner & Bruce Harris, *Self-Regulated Learning: Its Assessment and Instructional Implications*, 16 EDUC. RES. Q. 29, 29 (1992)). For similar descriptions of self-regulated learning, see ROCHESTER INSTITUTE OF TECHNOLOGY, EFFECTIVE TEACHING TECHNIQUES FOR DISTANCE LEARNING: SELF-REGULATED LEARNING, *at* http://www.rit.edu/~609www/ch/faculty/self-reg.htm (last visited Apr. 28, 2003); *see also* Bobbi A. Kerlin, *Cognitive Engagement Style, Self-Regulated Learning and Cooperative Learning*, *at* http://www.lhbe.edu.on.ca/teach2000/onramp/srl/self_reg_learn.html (last visited Apr. 28, 2003); Claire E. Weinstein & Gretchen Van Mater Stone, *Broadening Our Conception of General Education: The Self-Regulated Learner*, *in* NEW DIRECTIONS FOR COMMUNITY COLLEGES: DIRECTING GENERAL EDUCATION OUTCOMES No. 81, at 31 (Neal A. Raisman ed., 1993); Philip H. Winne & Denise B. Stockley, *Computing Technologies as Sites for Developing Self-Regulated Learning*, *in* SELF-REGULATED LEARNING: FROM TEACHING TO SELF-REFLECTIVE PRACTICE 106 (1998); Reinhard W. Lindner & Bruce Harris, *Self-Regulated Learning: Its Assessment and Instructional Implications*, 16 EDUC. RES. Q. 29 (1992).

10. Barry J. Zimmerman & Andrew S. Paulsen, *Self-Monitoring During Collegiate Studying: An Invaluable Tool for Academic Self-Regulation*, *in* NEW DIRECTIONS FOR TEACHING AND LEARNING: UNDERSTANDING SELF-REGULATED LEARNING No. 63, at 13 (Paul R. Pintrich ed., 1995).

The website of the Rochester Institute of Technology expresses a similar view:

> The consequences of learning activities [engaged in by expert self-regulated learners] are personally rewarding to students who take pride in their efforts and the meaning they construct. Their success is a reflection of their personal imagination, comprehension, and strategies in addition to their hard work. Self-regulated students understand that effort and ability are not the only factors to success. They understand that controllable factors, such as particular strategies or persistence, are important to accomplishment.[11]

Thus, in courses in which teachers emphasize self-regulated learning, "[t]he teacher's primary role in promoting self-regulated learning is to help students assume responsibility for their own learning progress. . . . The teachers' goal is to work themselves out of the job of managing their students' learning."[12]

To place self-regulated learning in a learning theory context, it arises out of both the cognitivist and the constructivist movements in education.[13] It is cognitivist in the sense that its "roots . . . lie in the general information-processing approach to cognition."[14] Self-regulated learning is both consistent with and builds on cognitivist insights because expert self-regulated learners use cognitivist techniques (such as organization strategies like creating outlines and graphic organizers) to acquire and encode the skills and knowledge they are learning. The approach is constructivist in the sense that it reflects a recognition that learning takes place when students make what they are learning meaningful to themselves and when the students construct their own meanings from the instructional materials.[15]

B. The Self-Regulated Learning Cycle

Self-regulated learning involves a recursive cycle, conceived as involving three phases: *forethought*, *performance* and *reflection*, each of

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11. ROCHESTER INSTITUTE OF TECHNOLOGY, *supra* note 9.

12. BARRY J. ZIMMERMAN ET AL., DEVELOPING SELF-REGULATED LEARNERS: BEYOND ACHIEVEMENT TO SELF-EFFICACY 17-18 (1996).

13. For a detailed explanation of these two movements, *see* Schwartz, *supra* note 5, at 371-83.

14. PRESSLEY ET AL., *supra* note 4, at 2.

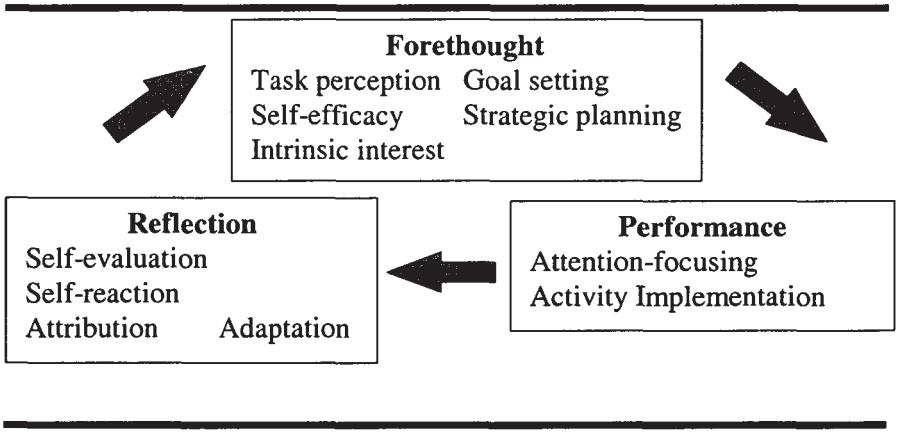
15. *See* ROCHESTER INSTITUTE OF TECHNOLOGY, *supra* note 9.

which has multiple components.[16] "Because use of self-regulatory processes is . . . cyclical, the phases tend to be self-sustaining in the sense that each phase creates inertia that can facilitate or undermine learning during subsequent phases."[17] Figure 1 below depicts the cycle and all the components of the three phases; I explain and detail each of the phases below.

1. *The Forethought Phase of the Self-Regulated Learning Cycle*

The forethought phase consists of all the thought processes that precede student engagement in learning activities. This phase includes at least five components: task perception,[18] self-efficacy, self-motivation, goal setting, and strategic planning,[19] each of which is detailed below. There is some sequence to these sub-phases, although the sequence is not exactly linear. Generally, the act of perceiving the task precedes the invocation of self-efficacy and self-motivation, both of which precede goal setting and the planning of learning strategies, and goal setting generally precedes planning learning strategies.

Figure 1. The Self-Regulated Learning Cycle



16. *See* Zimmerman, *supra* note 8, at 2-5. There are, in fact, other models of self-regulation, although I believe the Zimmerman model to be the most-often cited one. These models differ in appearance but not substance. For example, Professors Philip Winne and Denise Stockly, two well-known authors in the field who teach at Simon Fraser University in Canada, have created a more graphically sophisticated model of self-regulated learning. *See* Winne & Stockley, *supra* note 9, at 109. The differences, upon close examination, seem to be more about gaining prominence as scholars than about real differences in conceptualizations of self-regulated learning.

17. Zimmerman, *supra* note 8, at 5.

18. *See* Winne & Stockley, *supra* note 9, at 110.

19. *See* Zimmerman, *supra* note 8, at 2-3; Ertmer & Newby, *supra* note 9, at 11-12.

At the outset of a learning experience, all learners, expert and otherwise, perceive the task. In other words, they note the skill domain of the task (e.g., reading, studying, practicing, or writing) and the subject area of the task (e.g., contract law, civil procedure, or torts law).[20]

Having identified and classified the learning task, the learner reacts to it. In part, she considers how much the task interests her.[21] Expert self-regulators also recall past successes with similar tasks and determine the relevance of the task, both to the course and to their reasons for undertaking the particular educational endeavor in which they are engaged (e.g., going to law school).[22]

The learner also often invokes her general beliefs about learning. These beliefs may be accurate, such as the idea that learning requires hard work, or may include common misperceptions, like ideas that great effort may not be necessary, that learning should come quickly, and that what is learned should be "unambiguous" and have "only one [right] answer."[23]

At about the same time, the student also assesses her efficacy for accomplishing the task.[24] Self-efficacy refers to "an individual's estimate of his or her capability of performing a specific set of actions required to deal with task situations."[25] Four factors influence the strength of a student's perceptions of her self-efficacy for performing a task: (1) the student's current skill level, (2) the extent to which she has witnessed modeling from peers and from teachers (if the student has not yet become skilled at the task), (3) verbal persuasion regarding the difficulty of the task, and (4) the student's current psychological state.[26]

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20. *See* Winne & Stockley, *supra* note 9, at 110.

21. *See id.*; *see also* Zimmerman, *supra* note 8, at 2-3.

22. *See* Ertmer & Newby, *supra* note 9, at 11-12.

23. Deborah L. Butler & Philip H. Winne, *Feedback and Self-Regulated Learning: A Theoretical Synthesis*, 65 REV. EDUC. RES. 245, 253 (1995). Students also develop preconceptions about content areas that impede learning, such as the perception among novice law students that law provides fixed, easy, and obvious answers. *See id.*

24. *See id.*; *see also* Zimmerman, *supra* note 8, at 2-3.

25. Robert E. Wood & Edwin A. Locke, *The Relation of Self-Efficacy and Grade Goals to Academic Performance*, 47 EDUC. & PSYCHOL. MEASUREMENT 1013, 1014 (1987); *see also*, Anastasia S. Hagen & Claire Ellen Weinstein, *Achievement Goals, Self-Regulated Learning, and the Role of Classroom Context*, *in* NEW DIRECTIONS FOR TEACHING AND LEARNING: UNDERSTANDING SELF-REGULATED LEARNING No. 63, at 45 (Paul R. Pintrich ed., 1995) ("Self-efficacy refers to students' beliefs about whether they have the ability to successfully master an academic task.").

26. *See* Gregory Schraw & David W. Brooks, *Helping Students Self-Regulate in Math and Sciences Courses: Improving the Will and the Skill*, *at* http://www.cci.unl.edu/Chau/SR/Self_Reg.html (last visited Apr. 28, 2003).

The self-regulating learner then sets goals, the specific outcomes she desires, for the task.[27] Students can set mastery goals, performance goals, or both.[28] A mastery goal is a goal that focuses on acquiring the skills or knowledge that are the subject of study whereas a performance goal focuses on grades or other performances relative to her fellow students.[29] To see the difference, consider the following example: imagine a student is assigned to read and brief four cases addressing illusory promise in contract law. A mastery goal might be: "I will determine how courts have determined whether promises are illusory or not illusory so I can apply the cases to future problems." A performance goal would be: "I will read the cases well enough so I can get at least a B on my midterm" or "I will read the cases well enough so I will not be embarrassed if I am called on in class." Self-regulated learners generally set goals that are mastery goals, have specific performance standards, are close at hand, and are moderately difficult to achieve. In other words, the goals include the standards by which the student will measure success, are specific to the task, are short term, and are neither too easy nor too hard.[30]

The final and crucial step of the forethought phase involves devising and tailoring a strategic approach to achieving the student's goal.[31] Having classified the task according to its cognitive demands and subject area domain, the student recalls what she already knows about the domain, identifies possible strategies most appropriate to her goals and why those strategies work, reviews her own learning preferences, makes predictions of outcomes based on the various strategies she is considering, and then selects her learning strategies.[32] Strategy selection also includes identifying motivational strategies (e.g., recalling past successes and determining task relevance) and environmental strategies (e.g., removing distractions and forming study

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27. *See* Zimmerman, *supra* note 8, at 2-3; Ertmer & Newby, *supra* note 9, at 9.

28. *See* Hagen & Weinstein, *supra* note 25, at 46.

29. *See id.*

30. *See* Winne & Stockley, *supra* note 9, at 120-121; Hagen & Weinstein, *supra* note 25, at 51; *see also*, Barbara K. Hofer et al., *Teaching College Students to be Self-Regulated Learners*, *in* SELF-REGULATED LEARNING: FROM TEACHING TO SELF-REFLECTIVE PRACTICE 57, 76 (1998); Deborah L. Butler, *A Strategic Content Learning Approach to Promoting Self-Regulated Learning by Students with Learning Disabilities*, *in* SELF-REGULATED LEARNING: FROM TEACHING TO SELF-REFLECTIVE PRACTICE 160, 167 (1998); Mark Morgan, *Self-Monitoring of Attained Subgoals in Private Study*, 77 J. EDUC. PSYCHOL. 623, 624-25 (1985).

31. *See* Zimmerman, *supra* note 8, at 2-3; Ertmer & Newby, *supra* note 9, at 11-12. Because no single cognitive strategy works best for all students or all tasks, this process requires both strategy and self-analysis. *See* Zimmerman, *supra* note 8, at 1-2.

32. *See* Zimmerman, *supra* note 8, at 1-2; *see also* Schraw & Brooks, *supra* note 26; Winne & Stockley, *supra* note 9, at 110.

groups).[33] For example, the student assigned to read the illusory promise cases would review in her mind what she already knows about contract law in general and consideration law more specifically, would review her general case reading and case briefing strategies (and any modifications she has made to those strategies while reading contracts cases or, more specifically, consideration cases), would recall past successes in reading and briefing cases (or, at least, successes in other reading contexts), would consider how knowing about illusory promises may help her in the future (by helping her avoid drafting such promises or helping her identify and evaluate future clients' claims), would plan where and when she would do the reading and briefing (in a quiet place, such as the library, after class, for three hours), and would plan to bring questions about the reading to her next study group meeting because she knows she often best learns from her fellow students, or at least knows that she understands the classroom discussions better if she has discussed the subject in her study group first.

2. *The Performance (Volitional Control) Phase of the Self-Regulated Learning Cycle*

The performance phase is the implementation phase of the cycle. It involves not only the learning activities themselves, but also the mental processes that affect students' efforts to concentrate and otherwise implement those activities.[34] Thus, there are three aspects to this phase: (1) attention-focusing, (2) the activity itself (including the student's mental process for performing the activity properly), and, most importantly, (3) the self-monitoring the student performs as she implements her strategies and begins to learn.[35]

Attention-focusing increases the likelihood that studying endeavors will be productive. Many of my law teaching colleagues have expressed a belief to me that some of our students appear to have looked at their reading assignments for long periods of time, but to have made little effort actually to understand what they were reading. In part, this problem may be a function of strategy selection, but it also may be a problem with respect to the first aspect of the performance phase of SRL, attention-focusing. Self-regulated learners engage "action control strategies" to focus and protect their attention

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33. *See* Ertmer & Newby, *supra* note 9, at 11-12.

34. *See* Zimmerman, *supra* note 8, at 3-4.

35. *See* Zimmerman, *supra* note 8, at 3-4; Ertmer & Newby, *supra* note 9, at 11-12; Winne & Stockley, *supra* note 9, at 112 (characterizing self-monitoring as the "pivot" of SRL and as "central" to SRL).

to their learning tasks.[36] Action control strategies include both motivational control strategies (which regulate the attributes of the student's goals and tasks, their visual enactment, and their contingent outcomes), and emotion control strategies (which control feelings of inadequacy, anxiety, and negative effects when progress is slow).[37]

The learning activity itself involves engaging in one, or more likely, several cognitive strategies. A cognitive strategy is a technique for producing learning.[38] It includes a wide range of strategies tailored to the particular learning task, including, for example, developing flashcards and mnemonics to facilitate memorization, creating graphic organizers and outlines to organize materials, and reading the questions at the end of a chapter in a text before reading the chapter to facilitate reading comprehension.[39] For example, the student reading illusory promise cases may have developed a set of strategies for reading cases that includes:

1. *Pre-reading activities*: These activities may include reviewing related, already-learned materials (e.g., what the student already knows about consideration law), reading about the subject in a hornbook, reviewing the text's table of contents or the professor's syllabus to assess where the topic fits within the larger structure of the course, reading the introductory materials in the text, reading the questions after the cases, noting details about the courts that decided the cases, the dates and historical contexts of the decisions, etc., and brainstorming questions the student expects the cases to answer.

2. *Reading activities*: These activities may include reading all the cases together first fairly quickly to get a basic sense of the materials before reading in depth, looking up new terms in a law dictionary, taking notes, trying to answer the questions developed during the pre-reading and the questions appearing in the text after the cases, developing new questions, analogizing and distinguishing the newly-learned material from ideas already learned in the class and prior to law school, critiquing the courts' reasoning and anticipating and answering questions the professor may ask in class, and diagramming party and contractual relationships.

3. *Post-reading activities*: These activities may include making sure all the above-developed questions have been answered, preparing questions for

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36. *See* Butler & Winne, *supra* note 23, at 258.

37. *See id.*

38. *See* PATRICIA L. SMITH & TILLMAN J. RAGAN, INSTRUCTIONAL DESIGN 67 (2d ed. 1999).

39. *See id.* at 68.

a study group meeting or class discussion, mentally reviewing the key points from the cases, and re-reading the cases if any points are fuzzy.[40]

Self-regulated learners not only possess such cognitive learning strategies, but they have acquired these skills in such a way that they can use them in a wide variety of contexts. Self-regulated learners use verbalizations of task requirements (e.g., first, I will do this, than I will do that, etc.) and visualizations (e.g., a good diagram of the party relationships in a case looks like this) to ensure they perform the tasks correctly.[41]

As noted above, there is general agreement that the self-monitoring aspect of the performance phase may be most crucial.[42] The student's goals and strategy decisions set criteria for this monitoring,[43] which has three aspects: (1) monitoring the effectiveness of the selected strategies for achieving the student's learning goal, (2) monitoring the time and effort the strategy is requiring, and (3) weighing the time and effort against the effectiveness of the strategies.[44] Two of the best-known authors in the SRL field, Butler and Winne, describe the process as "internal feedback,"[45] asserting that this feedback includes a judgment of task success in relation to goals, a judgment of the relative productivity of various tactics and strategies in relation to expected or desired rates of progress, and affect (emotional reaction) associated with judgments about productivity.[46] Expert self-regulated learners monitor their learning both regularly (continuously, rather than intermittently) and proximally (close to the time of the event being monitored).[47]

3. *The Reflection Phase of the Self-Regulated Learning Cycle*

The reflection phase of the cycle guides the students as to their future learning endeavors; it is backward-looking in the sense that the student reflects on what she just did and how effective it was, and it is forward-looking in the sense that the student considers the implications of her

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40. This procedure reflects the approach that studies suggest best correlates with law school success. *See infra* notes 86-89 and accompanying text.

41. *See* Zimmerman, *supra* note 8, at 3-4.

42. *See* Winne & Stockley, *supra* note 9, at 112 (characterizing self-monitoring as the "pivot" of SRL and as "central" to SRL).

43. *See* Butler & Winne, *supra* note 23.

44. *See* William Y. Lan, *Teaching Self-Monitoring Skills in Statistics*, *in* SELF-REGULATED LEARNING: FROM TEACHING TO REFLECTIVE PRACTICE 86, 89 (Dale H. Schunk & Barry J. Zimmerman eds., 1998).

45. *See* Butler & Winne, *supra* note 23.

46. *See id.* at 5.

47. *See* Lan, *supra* note 44, at 90.

experience for future learning activities.[48] This phase includes four facets: self-evaluation, attribution, self-reaction, and adaptation.

Self-evaluation involves comparing one's performance with a standard, either in terms of the standard set by the learner or the instructor's objectives or in comparison to other learners.[49] "Self-regulated learners want to evaluate how they are doing promptly and accurately."[50]

Having evaluated her performance, the self-regulated learner develops attributions about the causes of her results.[51] An attribution, in this context, is the student's estimation of why she performed well or poorly. Because this estimation is crucial to the student's future study plans, Zimmerman describes attributions as "pivotal."[52] Although students' personal beliefs and the performances of others greatly influence students' attributions, self-regulated learners are much more likely to attribute failures to correctable causes, such as insufficient effort or incorrect selection of learning technique(s), and to attribute success to personal competence.[53] These attributions lead self-regulated learners to try again and to try harder when they fail. In contrast, students who attribute their failures to ability are more likely to give up and stop trying.[54]

Attributions are closely connected to the next facet, self-reactions, which are the student's emotional feelings about herself as a result of her results and of her attribution of causes of her results. [55] Self-regulated learners feel better about themselves as learners, even when they encounter learning difficulties, and therefore are more likely to persist to success.[56]

Finally, the students' attributions also influence their adaptations, the students' modifications of their learning strategies based on their experience in using the strategies, because the attributions correctly identify the sources of the errors and possible solutions for future learning endeavors.[57] Self-regulated learners are therefore more adaptive because they recognize both that learning difficult skills may require many practice cycles and that systematic variations in approaches will help them overcome learning difficulties. [58]

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48. *See* Zimmerman, *supra* note 8, at 4-5
49. *See id.* at 4-5; *see also* Ertmer & Newby, *supra* note 9, at 13.
50. Zimmerman, *supra* note 8, at 5.
51. *See id.*
52. *See id.*
53. *See id.*
54. *See id.*
55. *See id.*
56. *See* Zimmerman, *supra* note 8, at 5.
57. *See id.*
58. *See id.*

a. What Are the Differences Between Novice Self-Regulated Learners and Expert Self-Regulated Learners?

The ideas discussed above can be seen more clearly by comparing expert self-regulators and novice self-regulators. Tables 1 and 2 detail the differences between naïve and expert self-regulators; [59] they reveal the crucial importance of teaching our students to be self-regulators.

Table 1. Comparison of Naïve and Expert Self-Regulators According to the SRL phases

	Naïve self-regulators	Skillful self-regulators
Forethought		
Learning goals	Set overly broad, non-specific and grade-focused goals	Set specific, sequenced, hierarchical, learning/mastery goals
Self-efficacy	Possess low belief in ability to learn, anxious and avoidant of learning opportunities	Possess high belief in ability to learn, high motivation to learn and regulate learning
Intrinsic Interest in Learning	Low interest attributed to the task or the instructor, dependent on external social influences, and require rewards to learn	High interest, choose to select learning during free choice opportunities, work hard at learning, and persist even if obstacles are encountered

59. I based the first chart on information reflected in Zimmerman, *supra* note 8, at 1-19. I based the second chart on information reflected in Weinstein & Van Mater Stone, *supra* note 9, at 3-11.

Performance *Focus*	Unfocused and easily distracted	Focused on performance
Implementation of Strategies	Self-handicapping strategies such as low effort, spreading oneself too thin with work and other competing activities, and procrastination	Use systematic guides – self-guiding verbalizations and outcome imagery to guide performance
Self-monitoring	Fail to monitor or rely on fragmentary information, often develop inaccurate, often over-estimated levels of success, resulting in misplaced optimism, substantial understudying and, ultimately, poor results	Know when they are performing well and when not, altering approaches without help from others or adverse grade outcomes
Reflection *Evaluation*	Oblivious or avoidant regarding opportunities to self-evaluate, unable to compare outcomes to goals, they compare socially (to others)	Seek opportunities to self-evaluate, compare outcomes to well-developed goals
Attribution	Attribute outcomes to aptitude, undermining adaptive efforts with respect to failures, and discouraging future efforts with respect to successes because ability is seen as fixed	Attribute outcomes to strategy use and sufficiency of practice so successes can generalize to all tasks and failures can be cured

Adaptation	Non-adaptive at worst and unsystematic in adapting at best because of lack of goals and lack of belief in efficacy of adaptation	Systematically adapt based on outcomes with respect to learning goals

Table 2. Comparison of Knowledge and Skills of Naïve and Expert Self-Regulators

	Naïve self-regulators	Skill self-regulators
Knowledge *About Themselves as Learners*	Little knowledge	Know preferences, strengths, weaknesses, best and worst time of day for study, interests, talents, study habits, etc.
About Tasks and Strategies	Little knowledge	Know types of tasks and wide repertoire of strategies so well they can adapt those strategies to whatever task they have before them

Comprehension Monitoring *Self-assessment/Self-testing*	Don't and/or don't know how	Use various approaches to self-assess including: paraphrasing, application, reorganization (through outlining and diagramming), summarization, and teaching others
Fix-up Strategies	Don't use	Use re-reading, attempts to reason through, seeking help, cooperative peer learning
Motivation *Goal Setting and Goal Using*	Don't set, set poorly, or don't use	Set and use goals, believe they can accomplish learning tasks
Efficacy Expectations	Low efficacy – don't believe they can learn and often self-sabotage	Strong sense of empowerment, attributing success and failure to efforts and abilities they can control
Attribution	Don't believe in their ability to affect their academic successes and failures, attributing results to "the system," teachers and tests	

Executive control	Don't exhibit executive control	Act systematically: create learning plans, select strategies, implement strategies, monitor and evaluate progress, modify approaches where necessary, and evaluate overall outcomes to have information for future endeavors

The differences reflected in Tables 1 and 2 suggest the many ways in which self-regulated learning benefits not only the students but also their teachers.

b. What Are the Student and Teacher Benefits of Teaching Students to Be Self-Regulating?

Students benefit in several ways from being taught self-regulation skills. Professor Paul Pintrich of the University of Michigan explains:

> [W]hy is [self-regulated learning] of import for college students and faculty? Besides the obvious advantage for both students and faculty that self-regulating learners will be better students and learn more, the idea of self-regulated learning offers an optimistic perspective on college learning and teaching.[60]

Teaching students to self-regulate helps them learn the skills involved; they improve in their self-observation and self-monitoring skills, their goal-setting skills, and their use of learning strategies.[61] Moreover, by learning the foregoing skills and because they self-monitor their learning and adjust their strategic methods as needed, the students develop a sense of personal control and the motivation to continue learning on their own.[62] As students grasp and refine their ability to self-regulate, "they can be expected to grow in three major ways: (a) in their understanding of subject matter content, (b) in their learning efficiency, and (c) in their perceived self-efficacy for accomplishing additional learning tasks."[63]

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60. Pintrich, *supra* note 7, at 7.
61. *See* ZIMMERMAN ET AL., *supra* note 12, at 3.
62. *See id.*
63. *Id.* at 135.

Peggy A. Ertmer and Timothy J. Newby describe the benefits to students of being self-regulated learners even more enthusiastically; they argue that,

> [s]tudents who possess a large store of knowledge about learning strategies and their uses are better prepared to cope with a wide variety of learning situations. . . . Reflection [about their learning and about their use of learning strategies] enables learners to see themselves as actors with different alternatives. As one learns to anticipate chains of events, strategy corrections are made in advance of overt action and become part of one's action plan. These processes of inference-drawing, hypothesis-testing, and sense-making enable "reflection to stretch the mind beyond mere information towards the accumulation of wisdom."[64]

Zimmerman and his colleagues therefore assert that expert self-regulated learners, having discovered the processes that work best for them, ultimately learn more with less effort.[65]

Teachers also benefit from teaching their students to be self-regulated. Professor Zimmerman and his colleagues argue that the classroom benefits of teaching students to self-regulating include:

- fewer "lost" students;
- improved quality classroom discussions;
- more infectious sense of class interest in the topic;
- less drain on teacher in regimenting students;
- less end-of-term pressure to "save" marginal students;
- improved student morale; and
- improved student test performance.[66]

Because of these benefits, it makes sense that this memorandum is not the first assertion that law students should be taught to be self-regulators.

4. *Support from Law Professors and Lawyers for Creating an Expert Law Student Curriculum*

a. The MacCrate Report

In 1992, the American Bar Association Task Force on Law Schools and the Profession issued a report on Legal Education and Professional

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64. Ertmer & Newby, *supra* note 9, at 17 (citations omitted).

65. *See id.* at 9; *see also* PRESSLEY, *supra* note 4, at 9 (arguing that student success is "often a result of using appropriate strategies rather than superior innate ability or just trying hard").

66. *See* Ertmer & Newby, *supra* note 9, at 13-16.

Development (known as the "MacCrate Report")[67] that called for restructuring and refocusing legal education in this country. The report attempted to identify "the fundamental skills and values that every lawyer should acquire before assuming responsibility for the handling of a legal matter."[68] Although the MacCrate Report, perhaps the most influential work addressing law school teaching ever written, nowhere uses the terms "self-regulated learning" or "expert learning," it appears to have these concepts in mind in its reference to one of the skills new lawyers should possess, "organization and management of legal work."[69] The list of sub-skills included within this larger skill sounds almost like a partial list of self-regulated learning skills; the listed sub-skills include: setting goals, managing time and resources and being able to work collaboratively with other lawyers.[70] While some law schools, like my own, have responded to this suggestion by creating courses such as law office management, no law school, until the creation of the curriculum described in this article, has designed an instructional program focusing on teaching students goal-setting, managing time and resources, and working collaboratively.[71]

b. Law Review Scholarship

Although no law review article has yet to focus exclusively on self-regulated learning, several articles have addressed self-regulated learning ideas and the implications of those ideas for law students and/or for law teaching. All the authors agree that self-regulation is a crucial skill for law school learning.

First, in an insightful 1988 law review article,[72] Professor Paul Wangerin argued that law students should be taught knowledge of cognition (awareness of their strengths and weaknesses as learners)[73] and self-regulation of

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67. *See* AMERICAN BAR ASS'N SECTION OF LEGAL EDUC. AND ADMISSIONS TO THE BAR, REPORT OF THE TASK FORCE ON LAW SCHOOLS AND THE PROFESSION: NARROWING THE GAP, LEGAL EDUCATION AND PROFESSIONAL DEVELOPMENT-AN EDUCATIONAL CONTINUUM (1992) [hereinafter MacCrate Report].

68. *Id.* at 7.

69. *Id.* at 140.

70. *Id.*

71. Raleigh Hannah Levin, *Of Learning Civil Procedure, Practicing Civil Practice, and Studying* A Civil Action: *A Low-Cost Proposal to Introduce First-Year Law Students to the Neglected* MacCrate *Skills*, 31 SETON HALL L. REV. 479, 484 (2000) (describing organization and management of law practice skills as having been "neglected" by the legal academy).

72. *See* Paul T. Wangerin, *Learning Strategies for Law Students*, 52 ALB. L. REV. 471 (1988).

73. *See id.* at 476.

cognition (i.e., self-regulated learning).[74] Professor Wangerin also recommended the following nine learning strategies for law students: time and effort management, teacher study, efficient reading, note-taking, review, problem-solving, issue spotting, legal analysis, and case briefing.[75]

Second, Professor Gerald Hess, the director of Gonzaga's Institute for Law School Teaching includes readings addressing self-regulated learning in his bibliography for law professors interested in law school andragogy.[76] Professor Hess explains that

> [a] growing body of evidence suggests that a key factor in academic success in college is the degree to which the learner is self-regulating. Self-regulated learners are intrinsically motivated, self-directing, self-monitoring, and self-evaluating. Unfortunately, much of the classroom instruction at the university level not only fails to promote self-regulated learning, it often actually suppresses it. The authors offer suggestions about how teachers can promote self-regulated learning.[77]

Third, in a different article in which he reviews monographs relevant to law teachers, Professor Hess champions one monograph's focus on self-regulated learning principles:

> The last two parts of the book explore in more depth issues of how students and faculty can become lifelong learners. One fascinating chapter describes methods for teaching students how to learn by helping students to articulate their goals, to become aware of their own learning strategies, to use existing knowledge as a bridge toward understanding new concepts, and to check their own understanding.[78]

Fourth, although Feinman and Feldman, in their seminal article on law school teaching,[79] do not use either the term "self-regulated learning" or the

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74. *See id.* at 477.

75. *See id.* at 491-527.

76. *See* Gerald F. Hess, *The Legal Educator's Guide to Periodicals on Teaching and Learning*, 67 UMKC L. REV. 367 (1998); *see also* Howard T. Everson, *A Principled Design Framework for College Admissions Tests: An Affirming Research Agenda*, 6 PSYCHOL. PUB. POL'Y & L. 112 (2000).

> Similarly, recent work in the general area of self-regulated learning, metacognition, and problem solving provides strong evidence to suggest that for students to be successful in college they need to become strategic learners. According to this view, strategic learners are able to take responsibility for their own learning by setting realistic learning goals and using knowledge about themselves as learners as part of their approach to learning.

Everson, *supra*, at 115 (citation omitted).

77. Hess, *supra* note 76, at 385.

78. Gerald F. Hess, *Monographs on Teaching and Learning for Legal Educators*, 35 GONZ. L. REV. 63, 79-80 (2000).

79. *See* Feinman & Feldman, *supra* note 3.

term "expert learning," they clearly contemplate a law school educational program designed to develop such skills. According to these authors

> a crucial quality for a lawyer is autonomous learning, the ability to learn what needs to be learned to cope with a novel situation. . . . The first element of autonomous learning is that the lawyer recognize that his current skill and knowledge is inadequate for a new situation. He must then understand how to learn what needs to be learned. This is in part a research problem; the lawyer must know where to go to find out what he needs to know. Just as important, the lawyer must understand *how he can learn*. That is, he must have been previously exposed to learning in a variety of environments–individual and collaborative, directed, self-directed, and undirected–and he must have self-consciously considered the effectiveness of each of those environments for his own learning of different kinds of subject matter. Legal education is necessarily continuous over a lawyer's career, so the lawyer must be equipped to learn autonomously. Critical self-reflectiveness is a quality complementary to autonomous learning. It does double duty both as an element of learning-to-learn and as a prerequisite to evaluating performance as a legal practitioner and to evaluating the operation of law in society in general.[80]

Feinman and Feldman's notions of the lawyer as a continuous learner, as being an expert in both the general techniques of learning and in the lawyer's own learning style, and as being reflective and autonomous are all self-regulated learning ideas.

Fifth, Cathaleen A. Roach, the Director of the Academic Support Program at De Paul University School of Law, argues students should be taught "self-directed learning strategies"[81] and that

> [a] third general component of much of the learning theory is that students learn best when they are taught how to learn and not simply taught what to learn. Ultimately, therefore, if everyone learns differently, and everyone needs "context," then individuals achieve the highest and most effective learning when they learn how to learn material on their own.[82]

Finally, Alice M. Thomas, a professor at District of Columbia School of Law, explicitly articulates a vision of law school andragogy that emphasizes the teaching of self-regulated learning skills and a focus on developing graduates who are lifelong self-regulated learners.[83] She explains:

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80. *Id.* at 894.

81. *See* Cathaleen A. Roach, *A River Runs Through It: Tapping into the Informational Stream to Move Students from Isolation to Autonomy*, 36 ARIZ. L. REV. 667, 696 (1994).

82. *Id.* at 682.

83. *See* Alice M. Thomas, *Laying the Foundation for Better Student Learning in the Twenty-First Century: Incorporating an Integrated Theory of Legal Education into Doctrinal Pedagogy*, 6 WIDENER L. SYMP. J. 49, 76 (2000) (arguing for a composite theory of legal education that has, as its goal, "empowering the learner to engage in a lifetime of self-regulated learning").

> For example, in class or in my office, when responding to students who want me to just tell them the answer, I often tell them about . . . [my teaching theory] that requires them to approach learning with the goal of becoming a self-regulated learner.
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> . . . .
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> A self-regulated learner is a learner that has mastered both the substantive knowledge and the knowledge about how to learn, and in the process becomes master of the learning process. If the student is successful, than learning will occur even in the absence of the teacher as it must within the legal profession.[84]

Professor Thomas argues that employers actually expect such skills of law school graduates: "[L]egal employers, clients and others expect that, because the young lawyer has a law degree, she possesses the ability to creatively problem-solve, [and] possesses the ability to engage in self-regulated learning after law school."[85]

c. Comments from Colleagues

The above views should hardly be surprising. In conversations and meetings with many of my colleagues over the years, I frequently have heard my colleagues express similar views. For example, many of us believe our job is to teach our students to be lifelong learners, to have the learning skills to be able to learn what they need to learn to serve the first clients who walk into their offices. Teaching students how to be lifelong learners is, in fact, the core goal of the self-regulated learning movement. Likewise, I have heard colleagues express a belief that students should focus less on grades as such and focus more on the learning that necessarily precedes such grades. Self-regulated learners regularly set mastery goals, not grade goals. I have heard colleagues praise students because those students seek the help they need; self-regulated learners not only seek help when they need it, but also are skilled in recognizing when they need the help.

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84. *Id.* at 64, 64 n.54.

85. *Id.* at 76. Other works by law professors that are generally supportive of teaching students self-regulated learning skills include: Jacquelyn H. Slotkin, *An Institutional Commitment to Minorities and Diversity: The Evolution of a Law School Academic Support Program*, 12 T.M. COOLEY L. REV. 559 (1995) (describing Thomas Cooley's academic support program as including instruction in learning strategies); Nancy Millich, *Building Blocks of Analysis: Using Simple "Sesame Street Skills" and Sophisticated Educational Learning Theories in Teaching a Seminar in Legal Analysis and Writing*, 34 SANTA CLARA L. REV. 1127 (1994) (describing the University of Santa Clara School of Law's "Seminar in Legal Analysis and Writing" as involving instruction designed to teach students learning and metacognitive strategies); Paula Lustbader, *Construction Sites, Building Types, and Bridging Gaps: A Cognitive Theory of the Learning Progression of Law Students*, 33 WILLAMETTE L. REV. 315 (1997) (arguing that law professors should teach students learning strategies).

Many of the criticisms of students that I have heard over the years also suggest the need for teaching our students to be self-regulating. Complaints about how some students seem to read their assignments without thinking can be seen as complaints about students' poor selection of reading strategies and poor attention-focusing skills. Complaints about how students manage their study time can be seen as complaints about students' selection of environmental strategies. Statements about the "psychological" aspect of bar passage rates can be seen as statements reflecting an implicit recognition of the importance of self-efficacy in student outcomes. Complaints about students' failure either ever to realize when they are confused about something or their failure to realize their confusion until it is too late in the semester to do something about the problem can be seen as failures of the students to self-monitor their learning while it is ongoing and to evaluate their learning after they have completed it. Similar are complaints about students' failure to read the comments we write on exams and papers and learn from them or to take advantage of other learning opportunities we present to them; such avoidant behavior is typical of novice self-regulated learners.

In fact, from everything I have heard from my colleagues, the descriptions above of expert self-regulated learners describe our ideal student.

d. Practicing Attorney Comments

Finally, my conversations with practicing attorneys who train lawyers support this approach to legal education. For example, two lawyers who used to train new lawyers for a large, prestigious, national law firm have told me that a crucial skill new lawyers need is the ability to "know when they don't know." In other words, they want lawyers who recognize when they have not learned something they need to know; such self-monitoring is, as I argue above, a crucial aspect of self-regulated learning.

II. STUDIES OF SELF-REGULATED EXPERT LEARNING

Both SRL and aspects of it have been the subjects of hundreds of educational studies. In this section, I discuss the significance of those studies for law school instruction. I have organized this section into four parts: (1) a discussion of studies from within legal education; (2) a discussion of studies from outside legal education comparing the performances of expert self-regulators with novice self-regulators; (3) a discussion of studies assessing the effectiveness of courses and exercises designed to teach self-regulated learning as a whole or to teach aspects of self-regulated learning, and (4) a discussion of the implications we can draw from the foregoing research.

A. Studies from within Legal Education

Only four studies have purported to address self-regulation skills of law students, and no study has ever purported to address all of law students' self-regulation skills. All four studies correlate student success with self-regulatory behavior.

First, two studies of undergraduates (one group being undergraduate law students) attending college in Belgium (where law is an undergraduate degree) strongly indicate that self-efficacy influences student outcomes. In the studies, a treatment group of students was told about research into the causes of student success and was shown a video of interviews with upper division students, both of which depicted the causes of poor student performance as being insufficient effort, lack of experience, and ineffective study strategy selections and depicted improved performance as a function of students' efforts to learn study strategies. Students were required to write down what they had learned, and the class created a list on the board of a set of prescriptions for success on exams. A control group received no treatment. Students across the board in the treatment group improved their performances from the midterm pre-test to the final post-test, whereas those in the control group did not.[86]

Second, a study conducted in the United States compared how experts in the law read cases as compared to novices. The study found that experts were more likely to note the names of the parties, the date of the opinion, and the court and the judge authoring the opinion, were more likely to evaluate the opinion, were more likely to preview the opinion and re-read it analytically (selectively re-read and mark the text), were more likely to engage in synthesis of the opinion by merging the facts, rules, and rationale of the case, and were more likely to generate hypotheticals.[87]

Third, another U.S. study compared how students in the upper quartile and students in the lower quartile of a first-year law school class read a law review article. Students in the upper quartile were more likely to pose and solve problems as they read whereas students in the lower quartile were more likely merely to note important details, paraphrase, draw conclusions, and note an aspect of structure.[88]

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86. *See* Frank Van Overwalle & Machteld De Metsenaere, *The Effects of Attribution-Based Intervention and Study Strategy Training on Academic Achievement in College Freshmen*, 60 BRIT. J. EDUC. PSYCHOL. 299, 301-304, 305-308 (1990).

87. *See* Mary A. Lundeberg, *Metacognitive Aspects of Reading Comprehension: Studying Understanding in Legal Case Analysis*, 22 READING RES. Q. 407, 407-15 (1987).

88. *See* Dorothy H. Deegan, *Exploring Individual Differences Among Novices Reading in a Specific Domain: The Case of Law*, 30 READING RES. Q. 154, 163 (1995).

Finally, a fairly recent study (published in 1997) compared how a law professor and students admitted under an academic support program at a regional law school (likely Seattle University) (with LSATs between 142 and 146) read cases and correlated the students' reading techniques with their first semester grades. The results suggest that students who do well are more likely to read like expert legal readers or at least like expert students than their poorer-performing colleagues, are more likely to read with more knowledge going in, are more likely to read with a stronger sense of purpose, and are more likely to recognize that meaning in an opinion is constructed both by the court and by the reader (whose task it is to construct meaning).[89]

While these studies do not suffice as a basis for concluding that law students who possess SRL skills outperform those who lack such skills, the studies do strongly suggest a correlation between SRL skills and student outcomes, particularly in light of the results of studies conducted with respect to other graduate education programs and undergraduate programs.

1. *Studies from Outside Legal Education Comparing the Performances of Expert Self-Regulators with Novice Self-Regulators*

a. Studies of Self-Regulated Learning as a Whole

Self-regulated learning has been studied in a wide variety of contexts and from a wide variety of perspectives. Overwhelmingly, studies have shown a very high correlation between students' self-regulatory skills and their educational outcomes. A series of review articles supports this assertion.[90]

For example, Professor William Lan, after reviewing the studies of self-regulation, asserts the following:

> Researchers have demonstrated that self-regulation influences whether students succeed or fail in school. For example, self-regulation has been found to play a major role in the school success of minority students and poor immigrant children from

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89. *See* Laurel Currie Oates, *Beating the Odds: Reading Strategies of Law Students Admitted Through Alternative Admissions Programs*, 83 IOWA L. REV. 139, 158-159 (1997); *see also* Peter Dewitz, *Reading Law: Three Suggestions for Legal Education*, 27 U. TOL. L. REV. 657 (1996). Professor Dewitz, a professor who teaches curriculum, instruction, and special education at the University of Virginia argues: "Beginning law students are plagued by three problems that parallel the type of knowledge essential to successful reading. They lack conceptual knowledge; they do not know how legal texts are organized; and they are ignorant of the reading and learning strategies of legal experts." Dewitz, *supra*, at 661.

90. In educational psychology research, a review article summarizes, synthesizes, and analyzes the results of a series of studies previously published in an area of interest.

> Southeast Asia. Conversely, lack of self-regulation has been found to be associated with student underachievement.[91]

Similarly, Andrew Biemiller et al. state that the assertion that self-regulation enhances learning "comes from both correlational studies showing that higher-achieving students are more likely to be 'self-regulated' (as reported by others or themselves, or as observed), and from experimental studies showing that curricula designed to increase student self-regulation in an academic domain lead to improved achievement."[92]

These assertions are supported by comments in the 1990 article upon which Professor Hess relied; the authors of that article state, "[a] growing body of literature suggests that optimal academic performance is strongly tied to the degree of self-regulation the learner is capable of exercising."[93] They also assert that self-regulated learners are "both more keenly aware of the relation between specific behaviors and academic success and more likely to systematically and appropriately employ such behaviors"[94] and also exhibit greater flexibility in "adapting to the variable and sometimes uncertain [educational] challenges" typical of higher education.[95]

Professors Gregory Schraw and David W. Brooks[96] are even more sanguine about the effects of self-regulation on student outcomes. They claim that "improved self-regulation will enhance student efficiency by 10 percent or more, and transfer to some extent to other . . . courses, and perhaps beyond."[97] Schraw and Brooks also state that, even if we control for ability, students with high levels of metacognition engage in deeper processing and learn more even though they do not allocate more time or effort to learning.[98]

Finally, Zimmerman et al. report that, compared with low-achieving students, high achievers report setting more specific learning goals for themselves, using more strategies to learn, self-monitoring their learning process more frequently, and more systematically adapting their efforts on the basis of learning outcomes. They feel self-efficacious and personally

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91. William Y. Lan, *The Effects of Self-Monitoring on Students' Course Performance, Use of Learning Strategies, Attitude, Self-Judgment Ability, and Knowledge Representation*, 64 J. EXPERIMENTAL EDUC. 101, 101-02 (1996) (citations omitted).

92. Andrew Biemiller et al., *Factors Influencing Children's Acquisition and Demonstration of Self-Regulation on Academic Tasks*, *in* SELF-REGULATED LEARNING: FROM TEACHING TO REFLECTIVE PRACTICE 203, 203 (1998).

93. Lindner, *supra* note 9, at 29 (citations omitted).

94. *Id.* at 29 (citation omitted).

95. *Id.* at 29-30.

96. *See* Schraw & Brooks, *supra* note 26.

97. *Id.*

98. *See id.* (citing Gregory Schraw et al., *Academic Goal Orientations and Student Classroom Achievement*, 20 CONTEMP. EDUC. PSYCHOL. 359 (Raymond W. Kulhavy ed., 1995)).

responsible for their control of the academic learning process.[99] In a different article, Zimmerman and Paulson assert that "[r]ecent research . . . has shown that a common set of self-regulatory skills does exist, that these skills are highly predictive of students' academic success, and that these skills can be taught."[100]

These assertions are borne out by the studies I reviewed. For example, in a study published in 2001, 1,500 students were classified using a variety of standardized assessments of self-regulation, achievement, and ability, and then they engaged in a new problem-solving task. The study found that self-regulation was a better predictor of success at problem solving than standardized measures of ability, and, in fact, that high levels of self-regulation compensated for low overall abilities and achievement.[101] This study also reported the results of studies in 1990 and 2000 that found similar results.[102]

Likewise, in a different study, 160 students representing a variety of class-standing statuses who were enrolled in the college of education in a medium-sized midwestern university were administered an inventory designed to assess the degree to which they self-regulated. Results on the inventory were correlated with grades, and the researchers found a statistically significant correlation not only with the overall self-regulation inventory (which was the strongest correlation), but also with each of the five subscales (metacognition, learning strategies, motivation/self-efficacy, contextual sensitivity, and environmental utilization/control), regardless of ability.[103]

In a third study, researchers administered a self-regulation inventory to students attending a second state university in the midwest. After controlling for ability, researchers found that students who scored highly on the self-regulation inventory obtained (statistically) significantly better grades than those who received low self-regulation scores.[104]

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99. *See* ZIMMERMAN ET AL., *supra* note 12, at 2.

100. Zimmerman & Paulsen, *supra* note 10, at 13-14 (citations omitted).

101. *See* Bruce C. Howard et al., *The Influence of Metacognitive Self-Regulation and Ability Levels on Problem Solving*, *at* http://www.cet.edu/research/papers/regulation/AERA2001BHsral.pdf (last visited Apr. 28, 2003).

102. *See id.*

103. *See* Lindner & Harris, *supra* note 9, at 30-34; *see also* Dale H. Schunk, *Sequential Attributional Feedback and Children's Achievement Behaviors*, 76 J. EDUC. PSYCHOL. 1159, 1159-69 (1984). In a math study of students with learning disabilities, students who verbalized their cognition steps as they worked their way through the project, a self-regulation skill, not only outperformed those who did not, but also had higher perceptions of self-efficacy. *See* Schunk, *supra*, at 1159-69.

104. *See* Paul R. Pintrich et al., *Reliability and Predictive Validity of the Motivated Strategies for Learning Questionnaire (MSLQ)*, 53 EDUC. & PSYCHOL. MEASUREMENT 801 (1993).

Other studies have focused on various aspects of self-regulation (instead of looking at self-regulation as a whole).

2. *Studies of Self-Efficacy*

Of all the various aspects of self-regulation, researchers have focused most closely on self-efficacy and its influence on student outcomes. Self-efficacy, as explained above, refers to a student's perception of her ability to perform a particular task. Researchers, particularly those working with and under the auspices of the nation's best-known self-efficacy researcher, Professor Albert Bandura of Stanford, have conducted hundreds of studies into the relationship between self-efficacy and academic achievement. These studies reveal that, at all educational levels, self-efficacy correlates highly with student outcomes.

For example, according to Professors Hagan and Weinstein, "students with high self-efficacy have been shown to actively participate in learning activities, show greater effort and persistence, and achieve higher levels of academic performance than students with low self-efficacy."[105]

Student learning websites support this assertion. The Boise State University learning website asserts that, by the time students are college undergraduates, self-efficacy has a significant relationship to academic performance, even when ability is controlled. A collective body of research reveals "positive and statistically significant relationships between self-efficacy beliefs and academic performance and persistence outcomes across a wide variety of subjects, experimental designs, and assessment methods."[106] Similarly, the Cal State Fullerton website asserts:

> Self-Efficacy Theory states that self-efficacy expectations (beliefs about one's ability to successfully perform a given task or behavior such as completion of a college program of study) act as mediators of behavior and behavior change. Further studies reinforce the hypothesis that self-efficacy beliefs are proportional to academic performance.[107]

A third student learning website states that "[r]esearchers have also demonstrated that constructs related to self-efficacy are positively related to achievement. And in several instances, classes designed for low-achieving

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105. Hagen & Weinstein, *supra* note 25, at 45 (citation omitted).

106. Karen D. Multon et al., *Relation of Self-Efficacy Beliefs to Academic Outcomes: A Meta-Analytic Investigation*, 38 J. COUNS. PSYCHOL. 30 (1991).

107. CAL. STATE UNIV. FULLERTON, 'AT RISK' STUDENT POPULATION, *at* http://www.fullerton.edu/studentdiversity/atrisk.html (last visited Apr. 28, 2003).

students that focused on developing self-efficacy as well as academic learning experienced dramatic successes."[108]

Studies strongly support these assertions. In a meta-analytic synthesis and analysis of 39 past self-efficacy studies, including studies at every educational level from elementary school through college, investigators found that self-efficacy does facilitate both performance and persistence.[109]

Individual studies also provide support. For example, in a study of first-year medical students attending the University of Mississippi Medical Center, self-efficacy and possession of intrinsic learning goals (learning for learning's sake rather than for grades) were shown to correlate with first-year medical school grades.[110] In a study of 256 college students who had completed their first year of college at the University of California at Santa Cruz, there were "significant and substantial direct effects of self-efficacy on . . . academic expectations . . . and academic performance."[111] Similarly, in a study of 105 undergraduate engineering students, researchers found that self-efficacy contributes significantly to the prediction of grades in the engineering program, even when the variance attributable to objective math ability, past achievement, and vocational interest have been removed by regression analysis.[112] Finally, in a set of four studies of undergraduates, researchers found that "self-efficacy has a significant relationship to academic performance, even with ability controlled. . . . [T]he effects of self-efficacy were manifested in two different ways: as a direct effect on performance and as an indirect effect on performance, through its effects on grade goals which in turn affect performance."[113]

It seems fairly clear that self-efficacy greatly influences student outcomes.

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108. Frances Stage et al., *Creating Learning Centered Classrooms. What Does Learning Theory Have to Say?*, *at* http://teach.valdosta.edu/whuitt/files/collegelearn.html (last visited Apr. 28, 2003) (based on their 1998 monograph titled *Creating Learning Centered Classrooms. What Does Learning Theory Have to Say*? (1998)).

109. *See* Karen D. Multon et al., Relation of Self-Efficacy Beliefs to Academic Outcomes: A Meta-Analytic Investigation, 38 J. COUNS. PSYCHOL. 30, 34 (1991)).

110. *See* John R. Barker & Joanne P. Olson, *Medical Students' Learning Strategies: Evaluation of First Year Changes*, *at* http://www.msstate.edu/org/mas/ejour2.html (last visited Apr. 28, 2003).

111. Martin M. Chemers et al., *Academic Self-Efficacy and First-Year College Student Performance and Adjustment*, 93 J. EDUC. PSYCHOL. 55, 60 (2001).

112. Robert W. Lent et al., *Self-Efficacy in the Prediction of Academic Performance and Perceived Career Options*, 33 J. COUNS. PSYCHOL. 265, 268 (1986).

113. Wood & Locke, *supra* note 25, at 1021, 1023.

3. *Studies of Strategic Planning*

Planning activities, including assessing the task, goal setting, and strategy planning, have not been the subject of as many studies as has self-efficacy. However, there is significant evidence that these activities improve student outcomes. These activities, according to Professors Hofer, Yu, and Pintrich, make organizing and understanding learning materials much easier, and, in fact, "[l]earners that report using these types of planning activities seem to perform better on a variety of academic tasks in comparison to students who do not use these strategies."[114]

Professors Wood and Locke, for example, summarize the results of several studies of goal setting as follows: "A consistent finding [in studies of goal setting] is that, given adequate ability, harder or more challenging goals lead to higher task performance than easier or less challenging goals, no goals or 'do your best' goals. This has been found for many tasks including college grade performance."[115]

Similarly, Professors Hagan and Weinstein assert that students who set mastery goals are more likely to ask themselves how they can accomplish their goals and what will they learn (and usually select tasks based on the learning value of those tasks) whereas those with performance goals are more likely to ask whether they can do the task and whether they will look smart (and usually select tasks based on their ease). Moreover, when encountering difficulty, students with mastery goals intensify their effort and search for alternative learning techniques whereas those with performance goals "tend to reduce or abandon the planning or monitoring activities that might help them solve the problem."[116]

Most importantly, "when students set goals and monitor their self-efficacy they can boost their achievement potential by 30 percent, based on predictions from previous grades and scores on the Scholastic Aptitude Test."[117]

For example, Irish college students who were trained to set and monitor and did set and monitor specific, near sub-goals for a specific course obtained higher grades in the course and had greater interest in their coursework, to a

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114. Hofer et al., *supra* note 30, at 68 (citing Wilbert J. McKeachie et al., *Teaching Learning Strategies*, 20 EDUC. PSYCHOLOGIST 153, 153-60 (1985); Barry J. Zimmerman, *A Social Cognitive View of Self-Regulated Academic Learning*, 81 J. EDUC. PSYCHOL. 329, 329-339 (1989)).

115. Wood & Locke, *supra* note 25, at 1014.

116. Hagen & Weinstein, *supra* note 25, at 44-45.

117. Bridget Murray, *Teaching Students How to Learn: College Students Often Struggle to Find Effective Learning Strategies. But Professors Can Help*, 31 MONITOR ON PSYCHOL., (June 2000), *available at* http://www.apa.org/monitor/jun00/howtolearn.html.

statistically significant level, than students who were trained to set and monitor distal, overall goals, than students who monitored their study time, and than students in a control group. This result was true even though the students who set and monitored the specific sub-goals spent significantly less time studying than some of their peers in the study.[118]

4. *Studies of Self-Monitoring*

Zimmerman and Paulsen suggest that self-monitoring can greatly enhance student outcomes. They assert that self-monitoring has been shown to improve learning and outcomes by: helping students discriminate between effective and ineffective study strategy activities, find more suitable strategies, enhance their management and use of study time, better organize their knowledge, make more accurate self-judgments, engage in more effective planning and goal setting in future learning endeavors, improve motivation by improving outcomes and therefore self-efficacy and motivation, and comprehend new reading material or acquire new skills.[119]

These assertions find support in two studies of graduate education students enrolled in statistics courses at Texas Tech University. The students were forced to self-monitor their learning in a very structured way (by filling out a form about the frequency, intensity, and predicted effectiveness of their learning activities). Students forced to perform this structured self-monitoring outperformed, in terms of grades, those who did not self-monitor at a statistically significant level; in fact, from a statistical perspective, the enhancement in performance was deemed to be somewhere between a medium and large effect.[120]

5. *Attributional Retraining Studies*

As noted above, attributions are a student's causal explanation for her success or failure in a learning enterprise. Attributions of successes to the student's effort and strategy selection encourage future, similar efforts. "[I]n the case of failure, attributions to effort or strategy use, rather than innate ability, are especially adaptive" because they allow students the possibility of change.[121]

Attributional retraining refers to programs designed to teach students to attribute their successes to their effort and strategy use and their failures to

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118. *See* Morgan, *supra* note 30, at 627-28.
119. Zimmerman & Paulsen, *supra* note 10, at 15-17.
120. *See* Lan, *supra* note 91, at 111; Lan, *supra* note 44, at 96.
121. Hofer et al., *supra* note 30, at 72 (citations omitted).

insufficient effort or to errors in strategy selection (and to attribute neither successes or failures to innate ability). In other words, "attributional retraining consists primarily of teaching participants that their failures are due to lack of effort, an internal, unstable, and controllable attribute."[122] Studies show such programs are very effective. For example, in an oft-cited review article, the author concludes: "It can be concluded from the present review that attributional retraining methods have been consistently successful in increasing persistence and performance."[123] Similarly, Shraw and Brooks assert, "the majority of attributional retraining programs are quite successful."[124]

Other studies provide support for these assertions. For example, in two different studies, researchers manipulated the efficacy beliefs of students by providing fictitious performance norms to some of the students during feedback. Students in the positive feedback group "set higher aspirations, showed greater strategic flexibility in the search for solutions, [and] achieved higher performance"[125] than those who did not receive the positive feedback (even after controlling for ability).[126] Similarly, Wilson and Linville showed college students data showing that grades are unstable and showed them videotapes of successful upper division students who told stories of how they improved their grades. The students who received this treatment outperformed those who did not receive it.[127] Attributions, which greatly influence future self-efficacy, therefore, appear crucial to student success.

B. Studies Assessing the Effectiveness of Courses Designed to Teach Self-Regulated Learning Skills

Taken as a whole, the foregoing studies provide some support for the notion that self-regulated learning can be taught and that such instruction improves student outcomes. This assertion finds considerable additional support in the studies that have assessed self-regulated learning curricula. As

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122. Friedrich Försterling, *Attributional Retraining: A Review*, 98 PSYCHOL. BULL. 495, 509 (1985).

123. *Id.*

124. Schraw & Brooks, *supra* note 26.

125. Chemers et al., *supra* note 111, at 55-56 (citing Thérèse Bouffard-Bouchard, *Influence of Self-Efficacy on Performance in a Cognitive Task*, 130 J. SOC. PSYCHOL. 353 (1990) and Daniel Cervone & Philip K. Peake, *Anchoring, Efficacy, and Action: The Influence of Judgmental Heuristics on Self-Efficacy Judgments and Behavior*, 50 J. PERS. & SOC. PSYCHOL. 492 (1986)).

126. *See id.*

127. *See* Timothy D. Wilson & Patricia W. Linville, *Improving the Performance of College Freshmen with Attributional Techniques*, 49 J. PERS. & SOC. PSYCHOL. 287, 291 (1985).

noted above, the assertion that self-regulation enhances learning comes from both correlational studies showing that higher-achieving students are more likely to be self-regulated (as reported by others or themselves, or as observed) and from experimental studies showing that curricula designed to increase student self-regulation in an academic domain lead to improved achievement.[128]

Ertmer and Newby express certainty about the efficacy of SRL instruction: "Researchers today would agree that most students do not develop learning strategies unless they receive explicit instruction in their use: learning how to learn cannot be left to students. It must be taught."[129]

> Students can learn to be self-regulated . . . It is not a characteristic that is genetically based or formed early in life so students are "stuck" with it for the rest of their lives . . . [A]ll students can learn to be self-regulating, regardless of age, gender, ethnic background, actual ability level, prior knowledge or motivation . . . and . . . faculty can explicitly help them achieve this goal . . . Self-regulated learning is not a personality 'style' or trait that the individual has no control over . . . [T]here is an abundance of empirical research that shows that students can learn how to control their own learning and become self-regulated learners . . . [I]n contrast to traditional psychological research, which is often based in the laboratory and focused on nonacademic tasks, much of the research on college students and their self-regulation of learning has been done in ecologically valid classroom studies and has focused on actual tasks taken from real college courses. . .[130]

Pintrich explains, "strategies for self-regulated learning can be taught in any type of classroom context . . . They can be taught in separate courses or programs . . ., in general study and learning skills programs, and in mathematics, science, social sciences and humanities courses."[131] Professor Lan, based on his studies of self-monitoring and on his review of the literature, argues that these same assertions apply to graduate students:

> It appears that even graduate students, the experienced veterans of higher education, need assistance in engaging self-monitoring processes to improve their learning. We cannot expect self-monitoring or other self-regulated learning strategies to be automatic products of course work. Students at all levels, from learning-disabled students to graduate students, need systematic help to learn and use self-regulated learning strategies.[132]

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128. *See* Biemiller et al., *supra* note 92, at 203.

129. Ertmer & Newby, *supra* note 9, at 19 (quotations omitted).

130. *Id.*

131. Pintrich, *supra* note 7, at 7-9; *see also* Zimmerman & Paulsen, *supra* note 10, at 13-14 ("Recent research . . . has shown that a common set of self-regulatory skills does exist, that these skills are highly predictive of students' academic success, and that these skills can be taught.") (citations omitted).

132. Lan, *supra* note 91, at 113.

Individual studies of SRL programs and exercises support these assertions. First, in a 1998 study, a college level course designed to teach students to self-regulate improved students' GPAs, decreased their test anxiety, increased their efficacy, increased their mastery orientation to learning, and increased their use of strategies.[133] Second, in another study, undergraduate students who were taught to study by generating self-testing questions and were required to do so outperformed on examinations students who studied their own way.[134] Third, college students attending Cal State San Marcos and who had relatively weak entrance credentials (SATs below 500 on both tests) were placed into three groups with respect to learning from lectures. One group was trained to engage in self-questioning (treatment 1), one was trained to summarize the notes (treatment 2), and one was trained to review their notes (the control group). After training, which included demonstration, practice, and feedback, all three were given a lecture on a new subject. The two treatment groups outperformed the control group on the test administered immediately thereafter, and the self-questioning group outperformed both other groups on a test one week later.[135] Fourth, students in a stand-alone course in SRL at the University of Texas "tend to increase their grades[,] . . . tend to have a higher rate of retention at the university, and report greater satisfaction with the university as well as increases in self-esteem."[136]

1. *The Implications We Can Draw from this Research*

Based on the foregoing, we cannot, of course, conclude with certainty that a SRL instructional program would solve every law school's bar passage and attrition problems. We can conclude, however, based on the foregoing studies and our own knowledge of our students' lack of self-regulation skills, that such a program would be very likely to improve student outcomes, particularly if we make sure that students transfer these skills from the stand alone courses to their regular courses by having faculty learn SRL and cue students to select and use SRL techniques. This assertion stems from the quantity and quality of the studies and the fact that the studies include studies of law school reading, of medical students, of graduate students, and of undergraduate students attending prestigious institutions, such as the

133. *See* Hofer et al., *supra* note 30, at 79.

134. *See* Alison King, *Comparison of Self-Questioning, Summarizing, and Notetaking-Review as Strategies for Learning from Lectures*, 29 AM. EDUC. RES. J. 303, 303-323 (1992).

135. *See id.* at 307-316.

136. Weinstein & Van Mater Stone, *supra* note 9, at 37.

University of California at Santa Cruz, the University of Texas, and the University of Michigan.

III. A Model Expert Learner Curriculum

A. Introduction

The prior sections of this article have addressed my views as to why law schools should create self-regulated learning instructional programs. Based on a proposal supported by the analysis reflected above and below, the faculty at my law school approved a pilot offering of an introduction-to-law school course we entitled Expert Learning for Law Students I (ELLS I). The law school also has approved the creation of an on-line, not-for-credit, follow-up course, to be called ELLS II, which will address those law school learning skills that students could not learn in ELLS I because of constraints of time, human memory, and material. Finally, this spring, I, working with a team of colleagues teaching each of the first-year subjects taught at my law school, am completing the design of exercises to be integrated into the instruction of each first-year course that reinforce the students' self-regulation and law school learning skills. In the discussion below, I outline the rationales for the andragogical choices for each of these three components and then detail the results of the law school's first offering of ELLS I.

B. The Rationales for the Instructional Design of Expert Learning for Law Students (ELLS) I

In August 2002, my law school offered, on a pilot basis, an introductory self-regulated learning course designed for new law students.

1. *The Instructional Objectives and Underlying Instructional Goals*

As I explained in my Summer 2001 article, instructional design begins with an identification of the ultimate goals for student learning for the course (what the students should know and be able to do when they complete the course).[137] The instructor then performs an information processing and a prerequisite analysis to break those goals down into their underlying skills, knowledge, and values and states those skills, knowledge, and values, as well as the ultimate goals, as instructional objectives.[138] My ultimate goals were simple and twofold. First, I wanted the students to be able to use self-

137. *See* Schwartz, *supra* note 5, at 394.
138. *See id.* at 398-403.

regulated learning in their law school studies. Second, I wanted the students to be able to critically read court opinions and develop competent case briefs thereof.

The connection between these two core goals and the list of objectives I developed for the course and disclosed to the students is an important one; in several instances, knowledge and skills that are prerequisites to the two goals are stated as instructional objectives. For example, one set of objectives addresses the knowledge of legal civics that the task of reading court opinions requires. To understand court opinions, students need to know a wealth of terms (trial, appeal, affirm, reverse, overrule, appellant, appellee, etc.), understand basic court hierarchies (trial courts, intermediate appellate courts, supreme courts) and understand basic, law-related concepts, such as precedent and stare decisis. Accordingly, knowledge and understanding in all these areas are instructional objectives of the course. Similarly, a second set of objectives addresses reading comprehension skills, such as pre-reading a text (in other words, before reading a case, students should read the table of contents, the introductory materials, and the questions after the case and should develop questions the student expects the case to answer). Two other examples are objectives dealing with understanding what to expect from law school and how human beings learn. The former is valuable because it makes students more receptive to learning the course material, and the latter helps students understand why the self-regulatory skills they are learning produce better learning. Studies of principle learning show that students better retain new principles when they understand the whys of the principle.[139]

For a variety of reasons, I did not include in ELLS I objectives addressing all the learning strategies and skills the students will need in law school. First, given the time constraints of the course and the limits on human memory, I did not feel students would have been able to learn everything. Second, by focusing on only the most important skills, I hoped to produce better learning of the strategies we did study. Third, most of the lawyering skills we try to teach our students in their first year of law school (e.g., application of rule to fact, issue spotting, applying and distinguishing cases, interpretation of contracts and statutes, problem-solving) and some of the learning strategies (e.g., organizational strategies, such as outlining and creating graphic organizers, and memorization strategies) require a larger quantum of substantive law than is possible within the confines of an introductory course focused on learning to be a self-regulated learner. Of course, the students will need to learn both the additional skills and the additional strategies; the former I will leave to first-year curricula while the

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139. *See* SMITH & RAGAN, *supra* note 38, at 201.

latter forms the basis for the work students will do in the second course in the expert learning series, ELLS II.[140]

The particular list of skills, knowledge, and values I produced is typical of most expert learning courses, [141] albeit somewhat more ambitious because ELLS I is shorter than most such courses (18 hours over the course of an intense, two week instructional period rather than 2-3 hours per week over a ten-week or fifteen-week semester) and is somewhat more ambitious in terms of the number of skills being taught.

2. *Rationales for the Instructional Methodologies*

The design of any course requires hundreds of individual decisions about what will best accomplish the instructor's objectives; consequently, an explanation of every instructional decision I made would be impossible. On the other hand, the rationales for at least a significant number of those decisions are crucial to understanding the course. Thus, this section details the rationales for the decisions I regard as either most significant or most unusual.

First, I chose to start the course with demonstrations and discussions of the benefits of the SRL cycle for law school, for the bar exam, and for law practice. At the first class session, I had current students speak about the benefits of SRL to their own learning. I had recent bar takers talk about the benefits of SRL for bar study and had practitioners discuss a hypothetical case that would require the lawyer to learn lots of new things about the law and about the world (such as a claim by a student who has a brain injury for educational accommodations) to stress the importance of lifelong learning for lawyers. The idea is to convince students, from the outset, that SRL will work for them in law school. This latter point is crucial because convincing students SRL will work for them will foster the students' self-efficacy[142] and will help the students make the kinds of attributions we want them to make (attributing their successes and failures to effort and strategy selection rather than to innate ability).[143] There appears to be fairly uniform agreement among

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140. *See infra* notes 181-94 and accompanying text.

141. *See, e.g.*, Hofer et al., *supra* note 30, at 57, 67-72; Claire E. Weinstein & Richard E. Mayer, *The Teaching of Learning Strategies*, *in* HANDBOOK OF RESEARCH ON TEACHING 315 (Merlin C. Wittrock ed., 3d ed. 1986); ZIMMERMAN, *supra* note 12, at 54, 69-70; Schraw & Brooks, *supra* note 26 (citing John Hattie et al., *Effects of Learning Skills Interventions on Student Learning: A Meta-Analysis*, 66 REV. EDUC. RES. 99 (1996)).

142. For a discussion of the crucial importance of self-efficacy in the SRL cycle, see *supra* notes 105-13 and accompanying text.

143. For a discussion of the importance of attributions and of the types of attributions necessary to the SRL cycle, see *supra* notes 51-54 and accompanying text.

the experts about the efficacy for student outcomes of using such demonstrations and discussions for these purposes. [144]

Second, I also have included, on the first day, instruction addressing both how humans learn and the overall SRL cycle. This recommended approach[145] helps students to understand why SRL works and to develop a mental schema for putting together all that they will be learning. Understanding the rationale for principles and procedures (like the SRL cycle) helps students create a schema (like the one presented in this memorandum for SRL) for storing the new material presented later in the course.[146]

Third, I have included three recurring activities in the course: (1) a time management/self-monitoring log, (2) guided journaling, and (3) required quiz outcome predictions combined with evaluations of those predictions and their causes, each of which are recommended practices.

Because teaching students time management skills is an instructional objective of the course, I included, in accordance with the recommendations of the experts, a time management log that requires the students to think through how they are spending their time. The log includes where they will study, how long they will study, and how they will build spacing into their study.[147] I also required every student to serve as a consultant to another student about her log.[148] Using peer teaching to teach students time management skills makes considerable sense because sufficient time management skills to serve this function are easily taught and students can learn both by the act of teaching and by the teaching itself.

The self-monitoring aspect of the log is a hybrid of the form successfully used by Professor Lan in his graduate statistics course[149] and the self-monitoring logs recommended by Professors Zimmerman, Bonner, and

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144. *See* Hofer et al., *supra* note 30, at 75; *see also* ZIMMERMAN, *supra* note 12, at 130; Wilson & Linville, *supra* note 127, at 287-288; Bob Robeson, *Self-Efficacy Beliefs and Learning: Linking Theory to Practice*, *at* http://www.indiana.edu/~1506/robeson.html (last visited Apr. 28, 2003); Van Overwalle & De Metsenaere, *supra* note 86, at 301-304, 305-308.

145. *See* Schraw & Brooks, *supra* note 26 (citing Gregory Schraw & David Moshman, *Metacognitive Theories*, 7 EDUC. PSYCHOL. REV. 351 (1995)); *see also* Hofer et al., *supra* note 30, at 75 (recommending teaching the information-processing model of human cognition, especially the importance of making learning memorable to strengthen the memory trace).

146. *See* Schwartz, *supra* note 5, at 373-374.

147. Professors Winne and Stockley argue that students should be taught the "spacing effect" on student outcomes, that is, that studying by several studying episodes is much more effective than massive, continuous study. *See* Winne & Stockley, *supra* note 9, at 128 (citing Frank N. Dempster, *Spacing Effects and Their Implications for Theory and Practice*, 1 EDUC. PSYCHOL. REV. 309 (1989)).

148. *See* Hofer et al., *supra* note 30, at 76; *see also* ZIMMERMAN, *supra* note 12, at 19, 32-33.

149. *See* Lan, *supra* note 91.

Kovach, [150] by Professors Costa and Lowery,[151] and by Professsor Butler, respectively.[152] The log had the following columns that reflected self-monitoring goals:

- Concept/skill under study (e.g., how humans learn, pre-reading skills, legal civics, the intent element of intentional torts), which initially I provide and later students identify;
- student learning goal for the concept/skill;
- Strategy(ies) selected for learning the concept/skill and one or more of the students' reasons for selecting that strategy or those strategies;
- Amount of time and frequency of reading the texts and doing exercises regarding the concept;
- Amount of time and frequency of getting professorial, study group, and/or peer help regarding the concept; ability to focus during study;
- The steps the student went through in using the strategy(ies) selected; and
- The student's perception of the effectiveness of the technique(s) used.

Because the students' entries in this log are critical to their learning several of the skills that are the subject of the course (strategy selection, setting learning goals, self-monitoring, and attention-focusing), I designed the course so that students receive frequent feedback from their peer time management consultant on these efforts.[153]

The guided journaling experience is closely connected to the self-monitoring log, both in the sense that students are journaling (at least in part) about the topics on which they have written in their logs, and in the sense that I designed the requirement to help students consciously reflect on their learning process. The journaling is guided in the sense that I developed sets of narrow, focused questions to which students respond. For example, the journaling requirements for the third session of the course included the following questions:

- My best times and places for studying are . . . (finish this sentence) Why?;

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150. *See* ZIMMERMAN, *supra* note 12, at 19.

151. *See* ARTHUR L. COSTA & LAWRENCE F. LOWERY, TECHNIQUES FOR TEACHING THINKING 72 (1989).

152. *See* Butler, *supra* note 30, at 168.

153. *See* ZIMMERMAN, *supra* note 12, at 16 (recommending individualized feedback in this area).

- My greatest learning successes (in college, graduate school, and/or the workplace) were . . . (finish this sentence). I performed so well because . . . (finish this sentence).
- When I feel myself starting to lose my focus while I am studying, I will . . . (finish this sentence);
- Based on what you have learned about how humans learn, why should pre-reading and generating analogies help you learn more, better, and faster?;
- What is my learning style? How will I use what I have learned about my learning style in my law school studies?;
- Learning to read and organize rules is crucial to my success in law school because . . . (finish this sentence); and
- I performed (better, worse [select one]) than I predicted I would perform on today's quiz because . . . (finish this sentence).

This approach is also one recommended by those who have successfully taught SRL courses.[154]

The last daily requirement is e-mailing outcome predictions on quizzes and the final examination, a practice recommended by Professors Zimmerman, Bonner, and Kovach[155] and by Professors Butler and Winne.[156] This requirement also addresses the development of students' self-monitoring and self-reflection skills. However, in this context, because students also will be journaling about the accuracy of their predictions, the focus is on helping students develop accuracy in their self-monitoring,[157] a process Butler and Winne term "functional validity feedback" because the students are receiving information about the practical effects of the learning strategies they are using.[158]

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154. *See* Dale H. Schunk & Barry J. Zimmerman, *Conclusions and Future Directions for Academic Interventions*, *in* SELF-REGULATED LEARNING: FROM TEACHING TO SELF-REFLECTIVE PRACTICE 225 (1998) (describing journaling or, at least, time for reflection as a "common component" of instruction in self-regulation); Hofer et al., *supra* note 30, at 78; Schraw & Brooks, *supra* note 26 (citing Gregory Schraw, *Promoting General Metacognitve Awareness*, 26 INSTRUCTIONAL SCI. 113 (1998); *see also* Robeson, *supra* note 144.

155. *See* ZIMMERMAN, *supra* note 12, at 14-15, 29-30. They also suggest that students graph their self-efficacy ratings against their outcomes so that students, hopefully, begin seeing the two lines run together, a practice I intend to include in exercises that will be a part of at least some of the first-year classes. *See id.*

156. *See* Butler & Winne, *supra* note 23, at 7.

157. *See* ZIMMERMAN, *supra* note 12, at 14-15, 29-30.

158. *See* Butler & Winne, *supra* note 23, at 7.

Fourth, I integrated both demonstrations and student practice experiences in which I or a teaching assistant used the think aloud technique[159] to demonstrate all of our thinking steps as we used the skill being taught, and then cycled through the rest of the self-regulation phases. While we performed our think alouds, another instructor for the course (either an adjunct professor or me, if one of the teaching assistants was presenting) asked questions designed to make sure we did not leave out any steps of our thinking. I adopted the technique of questioning/interruptions because experts often unconsciously perform some of the mental steps involved in an intellectual skill. The use of the think aloud technique to teach self-regulation skills is typical of self-regulation courses,[160] and it is a recommended approach for teaching law students to self-regulate as they read cases.[161] Likewise, the cycling through all the phases with respect to each skill is also a recommended practice.[162]

Fifth, I have chosen to use fairly difficult materials for the course and to require the students to work very hard. This choice is supported by the work of Professors Winne and Stockly, who argue that students should be taught using somewhat difficult tasks so they develop "learned industriousness" and therefore associate the educational process (law school) with high effort.[163] Given the crucial importance of hard work for learning, particularly for law school, this approach makes enormous sense. It gives students the necessary understanding that learning can be difficult and involve much work. At the same time, because the entire course is designed to cause the students to succeed in learning the course material, students may become more confident that they will succeed in law school. [164]

Sixth, I devoted a chapter of the text (which, of course, I assigned) to teaching students the learning implications of their Myers-Briggs personality types and of their learning styles, and provided the students with links to

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159. A "think aloud" is an attempt by an instructor to trace every step of her cognitive processing for her students while she is engaged in a skill the students must acquire. *See* Schwartz, *supra* note 5, at 415-416.

160. *See* PRESSLEY ET AL., *supra* note 4, at 12, 95 (1995); Lindner & Harris, *supra* note 9, at 35; Schraw & Brooks, *supra* note 26; Hagen & Weinstein, *supra* note 25, at 53; Oates, *supra* note 89, at 160; ZIMMERMAN, *supra* note 12, at 16.

161. *See* Oates, *supra* note 89, at 160.

162. *See* ZIMMERMAN, *supra* note 12, at 15, 16; *see also* LaVergne Trawick & Lyn Corno, *Expanding the Volitional Resources of Urban Community College Students*, *in* NEW DIRECTIONS FOR TEACHING AND LEARNING: UNDERSTANDING SELF-REGULATED LEARNING No. 63, at 63 (Paul R. Pintrich ed., 1995).

163. *See* Winne & Stockley, *supra* note 9, at 116.

164. The combination of a difficult task and success at that task is a powerful tool for enhancing student self-efficacy and therefore may improve student outcomes.

websites that allowed them to self-assess their personality types and learning styles. This information allows the students to select more precisely learning strategies during the forethought phase that reflect their preferences, increasing the likelihood that their learning activities will be productive.[165]

Seventh, in addition to the foregoing, I have adopted a basic, recurring, overarching instructional approach typical of successful self-regulated learning programs. In this approach students read about a skill, participate in a demonstration of the skill, practice the skill under heavy supervision, and then try the skill on materials typical of what they will have to learn in their educational program and receive feedback on their efforts. For example, Schunk and Zimmerman assert that the following practices are typical of successful programs: strategy instruction, practice of strategies and feedback on effectiveness, instruction in and practice of monitoring, social support (teacher and, especially, peer support) and then withdrawal of support (through gradual withdrawal of scaffolding, from prompting to fading to self-management), self-reflective practice (through journaling or, at least, time for self-reflection), adaptive behaviors (self-management, environment structuring, help-seeking), and motivational factors, such as self-efficacy, attributions, perceived control over learning, self-reinforcement, and perceptions of competence.[166] Similarly, Pressley and Woloshyn recommend eight steps in teaching cognitive strategies:

- Model and explain the strategy;
- Model again and re-explain, focusing on common student errors;
- Instruct regarding when and where to use the strategy;
- Provide practice in as wide a variety of the settings in which students will be using the strategies;
- Encourage self-monitoring and have students do so;
- Help students transfer use of the strategies by helping them identify additional uses in all their courses;
- Heighten students' awareness of the impact of successful use of the strategies on successful learning; and
- Emphasize reflective or speedy processing.[167]

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165. *See* Vernellia R. Randall, *The Myers-Briggs Type Indicator, First Year Law Students and Performance*, 26 CUMB. L. REV. 63 (1995); *see also* Kristina L. Niedringhaus & Peter E. Thorsett, *Conference, Multiple Personalities: Using Technology to Teach Everyone* (program materials on file with author).

166. *See* Schunk & Zimmerman, *supra* note 154, at 227-229.

167. *See* PRESSLEY ET AL., *supra* note 4.

Other experts concur in this basic approach.[168]

Finally, I designed the two components of the final exam to reinforce all the skills the students have learned and to encourage them to apply immediately what they have learned to their work in the course and to their future law studies.

3. *Rationales for the Operational Parameters of the Course*

This section of the article explains the bases for the operational parameters of the course.

a. Duration, Hours, and Timing

The course will be two weeks long, involving approximately eighteen hours of instruction. Eventually, however, extended versions of the course could and should be developed so that students can start the course seven to eight weeks before the start of law school and therefore have more time for reflection on the course materials. I designed the course syllabus on a class-session-by-class-session basis to facilitate the development of alternative schedules.

b. Class Size and Teaching Resources Needed for the Course

I set the class size based on the only course for which I have information – the semester-long expert learning course at the University of Texas, which uses class sizes of twenty-eight students per class.[169] I set a ratio of twenty students per instructor, which I achieved by creating section sizes of forty students per section and planned to use one lead instructor and one adjunct professor per class.[170] I chose a 20:1 ratio, rather than the 28:1 ratio used at the University of Texas because, given the length (two or three weeks) and timing (three weeks before the students' first semester of law school) of the course, we need a quick (one day) turnaround on assignments, an issue that is not as pressing when a course is offered over an entire 15 week semester. The selection of instructors for the course is crucial; research suggests that the

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168. *See* Hagen & Weinstein, *supra* note 25, at 53; Weinstein & Van Mater Stone, *supra* note 9, at 12; ZIMMERMAN, *supra* note 12, at 130-32.

169. *See* Weinstein & Van Mater Stone, *supra* note 9, at 12.

170. One possibility that may work for many law schools is to use legal writing instructors as the instructors and/or adjuncts for ELLS I, an approach that may facilitate a smooth transfer of the students' newly-learned expert learning skills to their first-year curriculum while minimizing the cost to an institution of implementing ELLS I.

instructor's teaching efficacy, the extent to which the instructor believes she can teach the students, greatly influences student outcomes.[171] Professor Rob Robeson of the University of Indiana recommends all these practices suggesting that programs should use classmates and instructors as sources of support and to help students maintain their commitment to academic achievement, to emphasize personal responsibility, and to help students recognize that they can control their own learning and outcomes.[172] I also used student teaching assistants in the course for similar reasons and to allow for structured study group experiences because cooperative learning groups are a recommended grouping practice for expert learning curricula.[173]

c. Media of Instruction

I have chosen three principle media of instruction, texts, a course webpage, and live instruction. In general, I tried to use the course webpage for those activities that do not require live instruction—multiple choice quizzes, transmission of learning objectives for the course, between-class student questions and discussion, and web links to significant web resources.[174] I tried to reserve live instructional experiences for those learning endeavors for which live instruction is most efficacious–explanation of difficult concepts, demonstration of skills that have heavy cognitive (rather than written) components, and practice with on-the-spot feedback.

d. Grading and Course Credit

Because ELLS I eventually will replace the substantive part of my law school's existing introductory program, and because students already have a full load of first-year classes, students will receive no credits for the course. Students therefore will receive only either a pass or a fail for the course. I do plan in the future to assign students "shadow" grades (grades not reflected on their transcripts but given directly to the students so they can assess their degree of mastery of the learning objectives). There is evidence to support the assertion that expert learning curricula are more effective when students know they will receive grades on their self-regulation efforts.[175]

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171. *See* Robeson, *supra* note 154.

172. *See id.*

173. *See* PRESSLEY ET AL., *supra* note 4, at 85-88, 95; Schraw & Brooks, *supra* note 26.

174. *See* Jace Hargis, *The Self-Regulated Learner Advantage: Learning Science on the Internet*, 4 ELECTRONIC J. SCI. EDUC. (June 2000), *at* http://unr.edu/homepage/crowther/ejse/ejsev4n4.html.

175. *See* ZIMMERMAN, *supra* note 12, at 54 (citations omitted).

e. Texts

I required multiple texts for the course. First, I required students to read significant portions of Toni Fine's *American Legal Systems: A Resource and Reference Guide*.[176] Second, for the pilot offering of the course only (because I had not completed my text at the time), I required students to read large portions of Adam Robinson's *What Smart Students Know*, the best book I could find addressing aspects of SRL. In addition to addressing many aspects of SRL (but far from all), the text includes many of the messages all of us have long wished our students would get for themselves:

- "[T]hinking requires active effort. Smart student techniques are demanding. They require you to work with greater concentration."[177]
- "Nobody can teach you as well as you can teach yourself. . . . Merely listening to your teachers and completing their assignments is *never* enough. . . . Few things are as potentially difficult, frustrating, or frightening as genuine learning, yet *nothing* is so rewarding and empowering."[178]
- "Your self-image has a powerful influence on your academic performance. . . . Paradoxically, the self-image of smart students is not influenced by their performance in school, even though they excel."[179]
- "[M]ost students see themselves as passive passengers in the learning process. They think it's the teacher's job to teach and their job to listen and learn. So they sit back and wait for learning to happen. . . . [I]f students want to learn, they must teach themselves."[180]

In short, the text makes it clear to students that they will not do well unless they try hard, try smart, and take personal responsibility for their own learning, a set of messages I think most of us would endorse.

I have now completed my own text, *Expert Learning for Law Students*, which will replace the Robinson book in future offerings of ELLS I. The text is the end product of a two-year investigation into self-regulated learning. To create the text, I used many of the non-legal resources cited *supra* and *infra* (books and reports of educational studies) and read conference materials, law review articles, and books addressing each of the topics. The text includes the

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176. *See* TONI M. FINE, AMERICAN LEGAL SYSTEMS: A RESOURCE AND REFERENCE GUIDE (1997).

177. ADAM ROBINSON, WHAT SMART STUDENTS KNOW 5 (1993).

178. *Id.* at 20-21.

179. *Id.* at 21.

180. *Id.* at 271-272.

following chapters (I have marked with an asterisk those chapters designed to be a part of ELLS II):

Part I: Basic Principles

Chapter 1: Introduction to Expert Learning
Chapter 2: Introduction to Law School Instruction
Chapter 3: How Humans Learn
Chapter 4: The Self-Regulated Learning Cycle
Chapter 5: The Forethought Phase of the SRL Cycle
Chapter 6: Know Thyself: Learning Styles and Personality Types
Chapter 7: The Performance Phase of the SRL Cycle
Chapter 8: The Evaluation Phase of the SRL Cycle

Part II: Learning Strategies for Law Students

Chapter 9: Strategies for Reading and Briefing Court Opinions
Chapter 10: Strategies for Learning from Law School Classroom Experiences
Chapter 11: Strategies for Obtaining Assistance*
Chapter 12: Organizational Strategies*
Chapter 13: Memorization Strategies*
Chapter 14: Strategies for Learning Legal Research and Writing*
Chapter 15: Strategies for Learning Legal Analysis*
Chapter 16: Strategies for Preparing for and Taking Law School Examinations*
Chapter 17: A Chapter for the Family and Friends of Law Students*

Finally, to provide a substantive law backdrop for the course, students used the same criminal law text used by the criminal law faculty at the law school.

4. *The Rationales for the Instructional Design of ELLS II*

a. Rationales for the Instructional Objectives

As I discussed above, the instructional objectives for ELLS II reflect those objectives that I either lacked the time to address in ELLS I or could not address because we lacked a sufficient substantive law backdrop. For example, many of the objectives involve exam preparation or exam-taking skills. Similarly, in ELLS I, I could not address the self-regulation skills involved in writing professional skills papers because the students did not

know anything about writing professional skills papers, and I did not have time to include a paper writing experience in the course.

A few of the objectives warrant specific explanation. First, I chose to include explicit instruction on how to participate in cooperative learning groups. Effective participation in the structured study groups is crucial to the success of many law students. However, as the University of Minnesota's Cooperative Learning Center website explains, students do not inherently know how to participate in such groups.[181] Rather, the skills students need to learn to flourish in such groups, such as leadership, decision-making, trust-building, communication, and conflict-management, must and can be taught.[182] I therefore chose to include such instruction in ELLS II and in the text.

Second, I chose to include instruction in understanding and reading multiple-choice questions. Because many law schools and one-third of the bar exam include multiple-choice questions, law students need to become experts at taking multiple-choice tests. Moreover, instruction in multiple choice test taking is an explicit part of the Robinson text[183] and the expert learner course at the University of Michigan.[184]

Third, I chose to teach students how to generate and the importance of generating examples and non-examples of the concepts they are studying. For example, a student studying illusory promises in a Contracts course should be taught to generate examples of promises that are unmistakably illusory, that are unmistakably not illusory, and that raise a close question as to whether they are illusory or not. This choice reflects a recommendation in a well-known instructional design text; in their text, Professors Smith and Ragan argue that, where possible, students should practice by producing their own examples and non-examples.[185] I also chose to teach students to generate and analyze their own practice exams, another practice recommended by the designers of the University of Michigan's expert learner curriculum.[186]

Fourth, I included objectives addressing the self-regulation skills implicated by writing professional skills papers. The inclusion is justified by a number of factors. The Robinson text, for example, recognizes the

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181. *See* David Johnson & Roger Johnson, *Cooperative Learning*, *at* http://www.clcrc.com/pages/cl.html ("Social skills for effective cooperative work do not magically appear when cooperative lessons are employed.").

182. *See id.*

183. *See* ROBINSON, *supra* note 177, at 194-195.

184. *See* Hofer et al., *supra* note 30, at 76 (suggesting that students be given a multiple choice test with nonsense phrases to make the structure of such tests more self-evident and to facilitate teaching of multiple choice test-taking strategies).

185. *See* SMITH & RAGAN, *supra* note 38, at 184.

186. *See* Hofer et al., *supra* note 30, at 75.

importance of self-regulation in student writing.[187] Additionally, based on my conversations with legal writing colleagues at Western State and elsewhere (as well as my own experiences in law school and in practice), self-regulatory skills are crucial to effective legal writing and are often absent in law students. Finally, the omission of instruction in self-regulated legal writing might communicate to our students a meta-message suggesting a hierarchy among their courses that we do not endorse or intend.

Fifth, I included an objective dealing with exam stress management because, based on my experiences over eleven years at Western State, stress plays a large role in our students' struggles on our exams and on the bar and because the Robinson text includes stress management materials.[188]

Finally, my omission of objectives seeking student mastery of issue spotting, application of rule to fact, and applying and distinguishing cases requires some discussion. I have not stated objectives in these areas even though I have included instruction addressing all three topics and address all three in the text. I included instruction in these areas in ELLS II because students need to be experts in learning these skills. On the other hand, because issue spotting and legal analysis skills are objectives of all the other first-year classes, it seemed redundant and presumptuous to include those skills among the objectives for ELLS II.

b. Rationales for the Instructional Methodologies

In most respects, the instructional methodologies I selected for ELLS II are similar to those I selected for ELLS I. Thus, for example, I again adopted an instructional sequence in which students (1) do background reading about the skill, (2) experience a demonstration of the skill (mostly on-line), (3) practice the skill and obtain feedback on their practice efforts, (4) reflect on their experiences in using the skill, and (5) take a quiz on the skill.[189] While I also again chose to require the students to reflect on their learning processes because such reflection is a crucial part of all self-regulation courses,[190] I chose not to include a formal journaling experience, choosing to reserve formal journaling for the self-regulation exercises students will be doing in

187. *See* ROBINSON, *supra* note 177, at 205-243.
188. *See id.* at 186-188.
189. *See supra* notes 147-58 and accompanying text.
190. *See supra* notes 153-54 and accompanying text.

their regular classes.[191] I also, again, used the recommended cooperative learning experiences to facilitate the instruction and to provide the needed opportunities for practice and feedback.

I also plan to use a few techniques I have discovered through my research that were not appropriate to ELLS I and therefore require some discussion here. For example, the students will be reviewing model essay exam answers and memoranda and then will be socially negotiating in their study groups the characteristics that make these models so effective. I based this technique on an approach used in the University of Michigan's self-regulated learning course.[192] Similarly, based on a suggestion from a monograph addressing techniques for teaching thinking,[193] I created an exercise in which students form pairs and then one student analyzes a hypothetical while the other records the analyst's mental steps.

Finally, the structure of my planned syllabus requires some explanation. While the structure of the first ten weeks will be typical of law school syllabi, the structure of the last four weeks will not. Over the last four weeks, the students, in their study groups, will take control over their own learning by planning and scheduling their learning activities according to criteria I will create on the course webpage. This recommendation stems from the fact that the students will have become experts in their own learning by this time and from the need to help students transfer their learning beyond the course.[194]

c. Rationales for the Operational Parameters of the Course

i. *Duration, Hours, and Timing*

The course will run the entire length of the students' first semester of law school. The course will not require additional student time and effort over and above what they already would be doing for their study groups.

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191. Based on my preliminary conversations about self-regulation with my legal writing colleagues, it appears that journaling would fit particularly well with a legal writing curriculum. For more information about how I am envisioning the integration of self-regulation exercises in our first-year courses, see *infra* notes 195-209 and accompanying text.

192. *See* Hofer et al., *supra* note 30, at 76.

193. *See* ROBERT J. SWARTZ & D.N. PERKINS, TEACHING THINKING: ISSUES AND APPROACHES 182 (1990).

194. *See* Butler, *supra* note 30, 170; *see also* Lindner & Harris, *supra* note 9, at 35.

ii. *Class Size and Teaching Resources Needed for the Course*

The course could be taught by any full-time law professor; in particular, the director of a law school's academic support program is well-suited to teach this course.

iii. *Instructional Media and Texts*

The instructional media and texts for ELLS II would be the same as for ELLS I.

iv. *Grading and Course Credit*

Although, ideally, students' performance in expert learning courses would be graded and the students would receive unit credit for their work, neither is possible for ELLS II, given the fact that law students already have a large number of required units. Accordingly, the students will only be informed whether they passed or failed the course, a determination to be made solely based on effort.

5. *The Rationales for Creating the SRL First-Year Experiences Task Force*

a. Rationales for the Integration

There appears to be universal consensus among the self-regulation experts that the best way to ensure transfer and maximum learning of self-regulation skills is by integrating self-regulation experiences across the students' regular curriculum. For example, Professor Pintrich, the principal designer of the University of Michigan's expert learner curriculum, explains:

> Explicit courses . . . can help students get started, but students need to continue to practice and use the strategies over time after the formal course is completed. The opportunities and time can come from the student's own efforts to practice self-regulation as well as through tasks and situations that faculty organize in their classrooms. Moreover, in the classroom setting, faculty members can guide students through the tasks, deliver corrective feedback that helps a student see where he has gone wrong, and provide hints about how the student can get back on the proper path. Such guided instruction can be very helpful as students try to become self-regulated learners.[195]

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195. Pintrich, *supra* note 7, at 10.

In other words, we can teach the students self-regulation skills in ELLS I and ELLS II, but the students will only make self-regulated learning a part of who they are and how they learn if we reinforce the value of taking control over one's own learning in the students' graded classes. Professors Ertmer and Newby wholeheartedly agree:

> [W]hole programs and curricula are currently being crafted around the concept of reflection. . . . Experts are known to spend a substantial portion of their lives practicing their specialties in order to achieve a level of performance style characterized by "smooth, rapid, and automatic processing." It is not sufficient to simply tell students what expert learners know or even to demonstrate the procedures that expert learners use since much of what they know and do is not directly observable nor readily available to the student. Even if a student completely understands the expert learning process in a declarative sense, there is still the need for extensive practice if it is to be automatically and effectively implemented. . . . It is believed that students can gain competence and confidence utilizing metacognitive knowledge and skills if they are given opportunities to use them in a variety of learning environments and to receive informative, corrective feedback concerning their use. For this reason, extensive long-term practice and feedback are considered critical for the development of expert learning.[196]

Ertmer and Newby explain why long-term practice and feedback in the context of the students' graded courses is crucial: the mental activity involved in self-regulation need not go on at a conscious level such that it uses up short-term memory.

> Research suggests that when mental processes are used often, they become automated and more efficient. Expert learners . . . are able to respond quickly, consistently, and effectively to internalized strategies for thinking and problem solving. Unless [they] hit a cognitive snag (lack of comprehension), they are able to proceed with most of the mental work being done at a subconscious level.[197]

Professors Weinstein and Van Mater Stone offer similar thoughts of particular significance to schools like Western State that admit at least some at-risk students. They assert that the effects on student outcomes likely to result from stand-alone courses, like ELLS I and II

> can be magnified by adding the second approach to teaching learning-to-learn strategies and skills -- the Metacurriculum approach. . . . For students . . . at high risk for academic failure, a combination of the adjunct [stand alone] and the metacurriculum approaches is needed. In this combined approach the adjunct programs focus on the basic knowledge and fundamental mechanics for the different types of strategies and skills needed for self-regulated learning. The metacurriculum approach helps to provide the varied practice with feedback, and modeling needed to

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196. Ertmer & Newby, *supra* note 9, at 19, 21 (citations omitted).

197. *Id.* at 15 (citation omitted).

> develop the executive control necessary to create a systematic approach to studying and learning.[198]

Professors Pressley and Woloshyn argue that the metacurriculum aspect of the self-regulated learning instruction is, by far, the most important part of a self-regulated learning program: "[T]hey [learning strategies] should be taught throughout the curriculum as part of the actual academic tasks that students encounter. Important strategies are best learned when they are practiced with the kinds of materials that students are expected to master when using the strategies."[199]

Professors Swartz and Perkins find support for the foregoing views in the thinking research that already has been conducted:

> Research in this field already indicates that the more teaching thinking which is based on a consistent and comprehensive plan and utilizes effective pedagogical techniques permeates the curriculum of a school or college, the more reinforcement good thinking receives. It then becomes more likely that students will incorporate the habits of thought we are trying to teach them into all their ways of thinking. Teaching thinking *solely* through a stand alone program minimizes its effectiveness.[200]

These views are also shared by Professors Schraw and Brooks[201] and by Professor Martin Kenn of the University of Western Australia.[202] In short, there is general agreement that self-regulated learning instruction is most effective when it includes integrated reinforcement across an institution's curriculum.

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198. Weinstein & Van Mater Stone, *supra* note 9, at 12, 14-15 (1993) (The authors are professors who teach such a course to "approximately 1200 students per year.").

199. PRESSLEY ET AL., *supra* note 4, at 10.

200. SWARTZ & PERKINS, *supra* note 193, at 122-123, 126.

201. *See* Schraw & Brooks, *supra* note 26. Professors Schraw and Brooks assert that students are more likely to transfer self-regulated learning if they use it in a variety of settings and that strategy instruction should be an integral part of every course and each and every class. They therefore recommend that strategies be taught in a systematic, across-department fashion and to have a plan for teaching them throughout the multi-semester curriculum. *Id.* (citing Michael Pressley & Ruth Wharton-McDonald, *Skilled Comprehension and Its Development Through Instruction*, 26 SCH. PSYCHOL. REV. 448, 466 (1997).

202. UNIVERSITY OF WESTERN AUSTRALIA, GUIDELINES ON LEARNING SKILLS (Mar. 22, 1996), *at* http://www.acs.uwa.edu.au/csd/tl/LearnSkillsGuidelines.html.

> Since learning skills do not exist in a vacuum, and as learning is always the learning of something, learning skills are best acquired in departmental contexts where their relevance to mastering the discipline and succeeding in assessments is most immediate. Moreover, departments are best able to specify how generic skills are manifested in their disciplines, to identify which learning skills are necessary to succeed in their disciplines, and to determine the stages at which they are effectively introduced into their curricula.

Id.

b. The Learning Experiences We Have Been Designing

Under my direction, the task force at my law school has been creating the learning experiences during this academic year. This process began by having each of the professors who will be teaching in the designated "ELLS section" read the ELLS text and review an in-progress law review article authored by one of my colleagues, Carole Buckner, addressing best practices in grouping students.[203] This background reading was designed to ensure that the entire team was operating from the same set of assumptions.

The team has since embarked on a process of creating exercises designed to reinforce the students' ELLS-based learning skills. The goal is to create a set of learning experiences that: (1) reinforces the students' ELLS learning, (2) makes the students' studying time more productive and more efficient, (3) does not significantly interfere with the students' normal coursework, and (4) does not significantly usurp classroom time. Below are some concrete examples.

One set of activities in all the classes will involve students brainstorming and then planning strategies before starting a learning project, sharing their progress, thought processes, and self-perceptions while they are engaged in the task, and, then, after they have completed the task, evaluating the effectiveness of the strategies they used using criteria they establish themselves (good-bad, effective-ineffective, time consuming, reasonable amount of time, etc.).[204] In large part, these tasks will take the form of having students fill out the time management/self-monitoring log that is an appendix to the ELLS text.

A narrower set of activities will involve helping the students connect course assignments to the skills the students developed through the ELLS program. For example, professors assigning cases with complicated timelines will suggest, before the students are expected to have completed their reading of that case, that the students re-read the ELLS I course materials dealing with creating a timeline as a reading strategy. Similarly, instructors will be informing students that their case briefs must adopt the ELLS format or will be requiring their students to read a subject area hornbook before reading a set of assigned cases (a pre-reading practice recommended in the ELLS text). Other instructors, during the discussion of a complicated case, will ask students about the questions they developed as they were pre-reading and reading the case or ask the students in what ways they disagreed with the court opinions they read (another recommended practice taught in the ELLS I text

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203. *See* Carole Buckner, *Transformation of the Traditional Law School Pedagogy to Address the Learning Styles of Culturally Diverse Students* (forthcoming Fall 2003).

204. *See* COSTA & LOWERY, *supra* note 151, at 67-69.

and course materials). Two additional and quite simple techniques will not only enhance students' self-regulation skills but also reinforce the students' ELLS I learning. First, each of the first-year instructors will emphasize mastery goals in the classroom and not performance goals.[205] Second, each of the instructors will recommend that the students use the ELLS note-taking techniques for taking notes in each of their classes.

The law school's legal writing directors are planning to have the students who are enrolled in the first semester writing course keep a journal in which they will be expected to reflect on their learning experiences in that class; the directors will make explicit the similarity between the students' journaling in ELLS I and their journaling in this class. The legal writing students, of course, will also be expected to read and become experts in the legal writing chapter of the ELLS text, and the legal writing instructors plan to make regular references to those materials over the course of the semester.

Another set of ideas relating to the reflection phase of the SRL cycle already has been incorporated into the design of ELLS I and also will be adapted to the first-year courses. The instructors will leverage the students' midterm examinations and quizzes by having students rate their confidence on the topics of the exam or quiz and then take the exam or quiz. After they are done, the students will reflect (in an e-mail) on both their performance on the assessment, the accuracy of their self-assessments, and the cause(s) of their successes or failures. This idea is an application of Butler and Winne's suggestion that feedback should include feedback regarding the accuracy of students' self-evaluation.[206]

Another proposal, recommended and adopted by a chemistry professor, has interesting law teaching implications. Professor Brian Coppola suggests that professors use cognitive modeling (or thinking out loud) to show how experts rely on reflection and introspection, balance all the information given and account for its limitations, suspend judgment while considering possible interpretations, rely on field-specific tacit assumptions, and deal with

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205. *See* Hagen & Weinstein, *supra* note 25, at 49-50 (citing studies showing that students used more effective learning strategies, sought challenging tasks, and had more positive outlooks toward the class and performed better in classrooms with mastery goals whereas, in classes with grade goals, students had lower self-perceptions of ability, more negative attitudes towards class, and performed worse).

206. *See* Butler & Winne, *supra* note 23, at 7-8.

uncertainty.[207] This technique, already a part of the ELLS I design, also will be used by several of the teachers in the ELLS section.

Professor Coppola also suggests that professors use analogies both to connect to prior learning and to teach thinking within the discipline by modeling developing and thinking through the efficacy of those analogies and by helping students brainstorm their own possible analogies.[208] He also suggests the use of counter-intuitive examples, heuristics, and concept maps, suggests that professors make students' roles explicit (e.g., students' roles in class vs. their roles on examinations), make explicit the narrative aspects of the discipline (e.g., making it explicit that courts' opinions tell a story of decisions made and actually include persuasive aspects in the sense that judges try to persuade us that the court correctly decided the case), encourage students to construct their own big pictures and to recognize the likely need for revision and persistence in construction, teach textbook reading, encourage multiple representations of the same phenomenon, and make improvement count in students' grades.[209] All of these suggestions will be implemented in some form in the ELLS section classes.

c. The Paper Submission Requirements Already in Use at Brigham Young University School of Law

The professional skills paper submission requirements at Brigham Young require the students to submit their papers in Microsoft Word format and to use Word's comment function to embed reflections about their finished product (such as identifying areas of weakness in their papers, acknowledging and explaining their drafting choices, suggesting how they could improve the paper, and other such reflections). This requirement, already existing within legal education and already used, in a slightly different form, at Western State in the law school's advocacy classes, will help students improve their self-monitoring and self-evaluation skills.

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207. Brian P. Coppola, *Progress in Practice: Using Concepts from Motivational and Self-Regulated Learning Research to Improve Chemistry Instruction*, *in* NEW DIRECTIONS FOR TEACHING AND LEARNING: UNDERSTANDING SELF-REGULATED LEARNING No. 63, at 89-90 (Paul R. Pintrich ed., 1995) (describing what the author, a chemistry instructor, does in his organic chemistry class to improve student outcomes by integrating self-regulated learning).

208. *See id.* at 89-90.

209. *See id.*

d. Results of Western State's First Offering of ELLS I

This section reports the results of Western State's Fall 2002 pilot offering of ELLS I. On their final examination for ELLS I, 90% of the students in the two sections demonstrated competency on each of the three major components of the examination: (1) Using forethought to plan a learning strategy, (2) Case reading and briefing, and (3) Reflecting on and evaluating the efficacy of a learning enterprise. The students' course evaluations were equally encouraging: 100% of the students said that using expert learning skills would help them do well in law school, 98% said that ELLS I had left them better prepared for law school, 97% said that the course had improved their learning skills, and 92% said they were likely or very likely to use 12 of the 15 self-regulated learning skills they had learned in the course. Subjective comments from the students were extremely laudatory; in fact, five or six of the students actually described the course as an empowering, life-changing experience.[210]

CONCLUSION

As this paper reveals, while there is no way we can be certain that teaching law students self-regulated learning skills will improve their performances in our classes and on the bar exam, we have very good reasons to believe that students who already self-regulate are among the most successful in law school, that self-regulation skills can be taught, and that the curriculum reflected in this memorandum will succeed not only in teaching law students to be self-regulating, but also in improving student outcomes. At the same time, teaching students these skills will benefit law faculty as well. As Professors Zimmerman, Bonner, and Kovach explain, "[t]he teacher's primary role in promoting self-regulated learning is to help students assume responsibility for their own learning progress . . . The teachers' goal is to work themselves out of the job of managing their students' learning."[211] This image of teaching, in which we teach our students so well that they are eventually able to teach themselves, is one I suspect all of us can endorse. Hopefully, if we commit ourselves to making our students expert learners, we will see benefits, not only in our classes, as our students take over responsibility for their own learning, but also on the bar exam and when our students begin practicing law.

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210. The evaluations for the course are on file with the author.

211. ZIMMERMAN, *supra* note 12, at 17-18.